

**Report Number: 208S-TRC-03-004**

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**Vehicle Safety Compliance Testing for FMVSS 208**  
**for Occupant Crash Protection**  
**Sled Test**

**Toyota Motor Manufacturing**  
**2003 Toyota Tacoma**  
**NHTSA Number: C35106**  
**TRC Inc. Test Number: S030501**

**Transportation Research Center Inc.**  
**10820 State Route 347**  
**East Liberty, OH 43319**



**Test Date: May 1, 2003**  
**Report Date: May 14, 2003**

**Final Report**

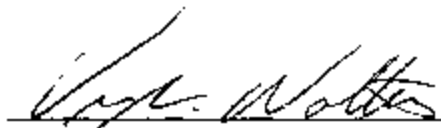
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**Washington, DC 20590**

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16. Abstract  An FMVSS 208 Section 13 compliance sled test was conducted on a 2003 Toyota Tacoma regular cab pickup truck, NHTSA No.C35106, in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP208S-01 for the determination of FMVSS 208 compliance. Possible test failures identified were as follows: Section 13.2 (d) axial compression for the passenger occupant.			
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### Purpose

This Federal Motor Vehicle safety Standard (FMVSS) 208 compliance sled test is part of the FMVSS compliance test program conducted for the National Highway Traffic Safety Administration (NHTSA) by the Transportation Research Center Inc. (TRC Inc.) under Contract No. DTNH22-98-D-01055. The purpose of this test was to determine if the subject vehicle, a 2003 Toyota Tacoma regular cab pickup truck, NHTSA No.C35106, meets the performance requirements of FMVSS 208, "Occupant Crash Protection," in the impact simulation sled test mode.

### Test Procedure

This test was conducted in accordance with NHTSA's Office of Vehicle Safety Compliance (OVSC) Laboratory Test Procedure No. TP-208S-01, dated January 15, 1998. Data was obtained relative to FMVSS 208, "Occupant Crash Protection," performance.

The sled test vehicle was instrumented with six (6) accelerometers to measure longitudinal accelerations. The sled was instrumented with one (1) longitudinal accelerometer, which is prefiltered with an analog filter to 200 Hz as an integral part of the sled firing circuit, and two (2) additional accelerometers: the primary accelerometer for pulse and integrated velocity determination and a backup accelerometer. In addition, the sled was instrumented with one (1) light trap to measure velocity and two (2) airbag firing timing circuits.

The sled test vehicle contained two (2) Part 572 E 50th percentile adult male anthropomorphic test devices (dummies). The dummies were positioned in the front outboard designated seating positions according to the dummy placement procedure specified in Appendix B of the Laboratory Test Procedure. The dummies were not restrained by seat belts.

Both dummies were instrumented with head and chest accelerometers to measure longitudinal, lateral, and vertical accelerations; chest deflection potentiometers; left and right femur load cells to measure axial forces; and upper neck load cells to measure longitudinal, lateral, and vertical forces and moments.

The forty-two (42) data channels were digitally sampled at 12,500 samples per second and processed per Sections 11.7 through 11.9 of the Laboratory Test Procedure.

The sled test event was set up to be recorded by one (1) real-time motion picture camera and six (6) high-speed motion picture cameras. The pre-test and post-test conditions were recorded by one (1) real-time motion picture camera.



### Test Results Summary

This FMVSS 208 compliance sled test was conducted by TRC Inc. on May 1, 2003.

The test vehicle, a 2003 Toyota Tacoma Truck, NHTSA No. C35106, does not appear to comply with the performance requirements of FMVSS 208 Section 13.2 (d), axial compression, in the impact simulation sled test mode as measured by Hybrid III 50<sup>th</sup> percentile male dummies.

	FMVSS 208 Max. Allowable Injury Assessment Values	Driver	Passenger
HIC	1000	331	456
Chest g	60 g	39.7	34.0
Chest Displacement	3 inches	1.3	0.4
Left Femur	2250 lbs	1375	824
Right Femur	2250 lbs	782	928
Neck Extension	57 Nm	24.6	24.7
Neck Flexion	190 Nm	49.6	86.2
Neck Tension	3300 N	802	332
Neck Compression	4000 N	3324	4195
Neck Shear	3100 N	1099	1800

The subject vehicle, a 2003 Toyota Tacoma, NHTSA No. C35106, appears to meet the other FMVSS 208 requirements for which it was tested. These results are shown in the data sheets that are included in this report.

The sled test vehicle was equipped with air bags at the driver and passenger seating positions. The dummies were not restrained by seat belts. The sled carriage was accelerated to 18.1 g with an integrated velocity change of 29.8 mph. The single stage airbag inflators were triggered at 20.2 milliseconds after 0.5 g acceleration was measured by the firing circuit. Following subsequent digital data processing and filtering the acceleration signal to Channel Class 60, the single stage airbag event trigger signal was 20.8 ms after the 0.5 g acceleration level was indicated.

### Sled Test Summary

NHTSA number: C35106  
Test type: Alternate FMVSS 208 Sled  
Test date: 05/01/03  
Test time: 1125  
Ambient temperature at impact area: 70.8° F  
Vehicle year/make/ model/body style: 2003/Toyota/Tacoma/Truck (regular cab pickup truck)

#### Dummy Info:

	Driver #314	Front #229
Type:	Hybrid III 50 <sup>th</sup> male	Hybrid III 50 <sup>th</sup> male
Location:	Left Front	Right Front
Restraint:	Airbag	Airbag
Number of data channels:	15	15

#### Number of Cameras:

Real-time:	1 (Did not run)
High-speed:	6

#### Door Opening Data:

Left Front:	Easy
Right Front:	Easy

#### Front Seat Data:

Seat track failure:	None	None
Seat back failure	None	None

#### Visible Dummy Contact Points:

Head:	Airbag, windshield, headrest	Airbag, sun visor, headrest
Chest:	Airbag	Airbag
Left knee:	Knee Bolster	Glove Box
Right knee:	Knee Bolster	Glove Box

General Test and Vehicle Parameter Data for the Sled Test Vehicle

Test Vehicle Information:

Vehicle year/make/  
model/body style: 2003/Toyota/Tacoma/Truck (regular cab pickup truck)  
Color: Mystic Gold Metallic/Oak  
VIN: 5TENL42N33Z228611  
NHTSA number: C35106  
Engine data:  
Placement: Inline  
Cylinders: 4  
Displacement: 2.4  
Transmission data: 5 speed, X manual,    automatic, X overdrive  
Final drive:    fwd, X rwd,    4wd  
Date vehicle received: 04/08/2003  
Odometer reading: 39  
Dealer's name  
and address: Tanksy Sawmill Toyota  
6300 Sawmill Road  
Dublin, OH 43017

Major Options:

Power steering	Yes	Other: 4-wheel anti-lock brakes, passenger airbag cutoff switch, belt pretensioners and force limiters, CRS top tether, ISO fix
Power brakes	Yes	
Power windows	No	
Air conditioning	Yes	
Power door locks	No	

Remarks:

General Test and Vehicle Parameter Data for the Sled Test Vehicle, Cont'd.

Data from Vehicle's Certification Label:

Vehicle manufactured by: Toyota Motor Manufacturing, California, Inc.  
Date of manufacture: 3/03  
VIN: 5TENL42N33Z228611  
GVWR: 4250 lbs  
GAWR: Front: 2200 lbs  
Rear: 2500 lbs

Data from Vehicle's Tire Placard:

Tire pressure with maximum capacity vehicle load:

Front: 44 psi

Rear: 44 psi

Recommended tire size: P205/75R15 or P235/55R16

Load index/speed rating: 97S (with P205/75R15) or 96T (with P235/55R16)

Recommended cold tire pressure:

Front: 29 psi

Rear: 29 psi

Size of tires on vehicle: P205/70R15

Spare tire: P205/70R15

Vehicle capacity data:

Type of front seats: Bench

Number of occupants (from count of seat belts):

Front 3

Rear N/A

Total 3

Remarks: None

General Test and Vehicle Parameter Data for the Sled Test Vehicle, Cont'd.

Weight of test vehicle as received (with maximum fluids):

Right front	782.6 lbs	Right rear	601.9 lbs
Left front	826.7 lbs	Left rear	611.8 lbs
Total front weight	1609.3 lbs	(57.0% of total vehicle weight)	
Total rear weight	1213.7 lbs	(43.0% of total vehicle weight)	
Total delivered weight	2823.0 lbs		

Calculation of test vehicle's target test weight:

RCLW = Rated Cargo and Luggage Weight

UDW = Unloaded Delivered Weight (2823.0 lbs)

DSC = Designated Seating Capacity (3)

RCLW<sup>1</sup> = 300 lbs

Target test weight =  $UDW + RCLW^1 + (\text{Number of Hybrid III dummies} \times 167 \text{ lbs per dummy})$

Target test weight =  $2823.0 + 300^1 + 334 = 3457.0 \text{ lbs}$

Weight of test vehicle with two dummies and 301.0 lbs of cargo weight:

Right front	845.5 lbs	Right rear	851.0 lbs
Left front	896.2 lbs	Left rear	865.3 lbs
Total front weight	1741.7 lbs	(50.4% of total vehicle weight)	
Total rear weight	1716.3 lbs	(49.6% of total vehicle weight)	
Total test weight	3458.0 lbs		

Remarks:

Weight of ballast secured in vehicle cargo area: None

Components removed to meet target test weight: N/A

<sup>1</sup> RCLW is set at a maximum of 300 lbs for target test weight determination.

General Test and Vehicle Parameter Data for the Sled Test Vehicle, Cont'd.

Test Vehicle Attitude:

As delivered door sill angle: 1.8° Nose Down

As tested door sill angle: 1.7° Nose Down

Fully loaded door sill angle: 1.1° Nose Down

Vehicle Wheelbase: 103.3 inches

Fuel System Data:

Fuel system capacity from owner's manual: 16.0 gallons

Useable capacity figure furnished by COTR: 16.0 gallons

Remarks: The roll angle measurements were within 1 inch of each other.

The left and right side measurements were 34.9 inches and 34.9 inches respectively.

Post-Impact Data

Test number: S030501  
NHTSA number: C35106  
Test date: 05/01/03  
Test time: 1125  
Test type: Alternate FMVSS 208 Sled  
Impact angle: 0°  
Ambient temperature  
at impact area: 70.8° F  
Temperature in  
occupant compartment: 70.8° F

Sled carriage velocity:

Integrated velocity from the integration of the entire sled acceleration: 29.8 mph  
Measured velocity from the light trap device attached to the sled (backup): 29.4 mph  
Specified integrated velocity range: 28 to 30 mph

Sled carriage acceleration:

Acceleration: 18.1 g  
Specified acceleration range: 16.0 g - 18.2 g

Sled carriage acceleration duration:

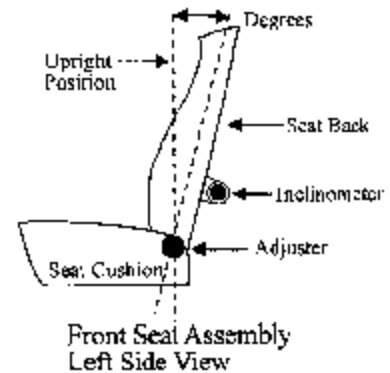
Time from T-0(-0.5 g) to 0.0 g: 121.8 ms  
Specified acceleration duration: 120 - 130 ms

The sled acceleration curve was within the specified corridor.

## Seat and Steering Column Positioning Data

Vehicle: 2003/Toyota/Tacoma/Truck

NHTSA No.: C35106



### Nominal Design Riding Position:

Driver Seat:      Seat Back Angle =  $20.3^\circ$  Fixed seat back position.

Passenger Seat:      Seat Back Angle =  $20.3^\circ$  Fixed seat back position.

### Seat Fore and Aft Positions:

Driver Seat:      Mid position - manual adjustment. The bench seat was moved full forward and full rearward, marking each of 12 latch positions. There was no latch position at center of travel. The seat was set in the 7<sup>th</sup> latch (counting 1 as full forward) of 12 positions.

Passenger:      Passenger seat was not independently adjustable from driver seat.

### Steering Column Adjustments:

The steering column was not adjustable.



### Dummy Measurement Data for Front Seat Occupants

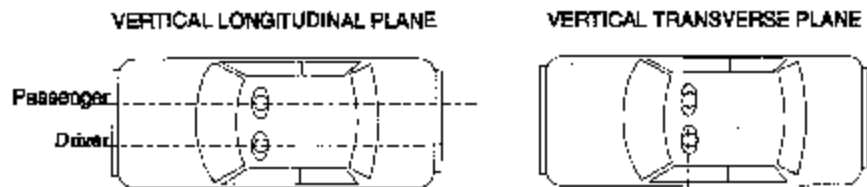
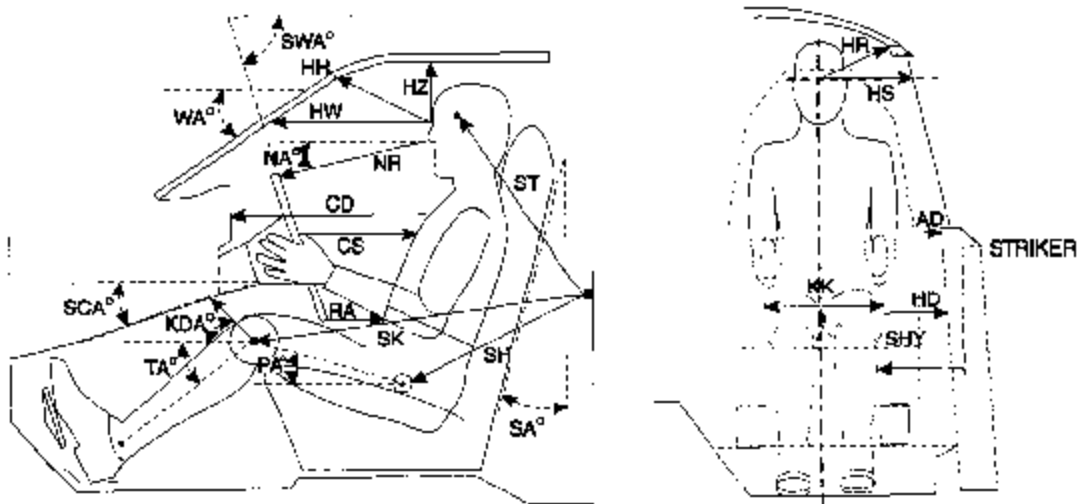
<u>Designation</u>	<u>Type of Measurement</u>	<u>Driver (Serial #314)</u>	<u>Passenger (Serial #229)</u>
WA	Windshield angle	38.0°	N/A
SWA	Steering wheel angle	26.8°	N/A
SCA	Steering column angle	63.2°	N/A
SA	Seat back angle	20.3°	20.3°
HZ	Head to roof	8.2 in	7.7 in
HH	Head to header	17.0 in	17.0 in
HW	Head to windshield	22.4 in	13.4 in
HR	Head to side header	8.8 in	9.6 in
NR	Nose to rim	17.4 in	N/A
NA	Nose to rim angle	9.2°	N/A
CD	Chest to dash	23.0 in	21.9 in
CS	Steering wheel to chest	12.2 in	N/A
RA	Rim to abdomen	7.8 in	N/A
KDL	Left knee to dash	7.7 in	6.7 in
KDR	Right knee to dash	7.7 in	6.5 in
KDA	Outboard knee to dash angle	14.6°	22.4°
PA	Pelvis angle	22.5°	23.8°
TA	Tibia angle	38.8°	38.1°
KK	Knee to knee	13.4 in	10.6 in
ST <sup>1</sup>	Striker to head	21.1 in	22.5 in
	Striker to head angle	71.0°	73.3°
SK <sup>1</sup>	Striker to knee	28.3 in	27.7 in
	Striker to knee angle	2.5°	1.3°
SH <sup>1</sup>	Striker to H-point	14.4 in	13.9 in
	Striker to H-point angle	24.9°	191.0°
SIHY	Striker to H-point (Y dir.)	8.7 in	9.1 in
HS	Head to side window	12.4 in	12.8 in
HD	H-point to door	5.7 in	5.7 in
AD	Arm to door	3.9 in	3.9 in

The seat back angle (SA°) is measured relative to vertical.

All other angles are measured relative to horizontal.

<sup>1</sup> A negative angle indicates the measurement point was located below the striker.

# Dummy Measurement Locations for Front Seat Occupants



### Descriptions of Dummy Measurements

When a level is to be used, it is to ensure that the line containing the two points described is either parallel or perpendicular to the ground. If a measurement to be made is less than 10 inches ignore the directions to use a level and approximate a level measurement. Also, when a measurement is to be taken to or from the center of a bolt on the dummy, take the measurement from the center of the bolt hole if the bolt is recessed.

**The following measurements are to be made within a vertical longitudinal plane.**

- \* HH Head to Header, taken from the point where the dummy's nose meets his forehead (between his eyes) to the furthest point forward on the header.
- \* HW Head to Windshield, taken from the point where the dummy's nose meets his forehead (between his eyes) to a point on the windshield. Use a level.
- HZ Head to Roof, taken from the point where the dummy's nose meets his forehead (between his eyes) to the point on the roof directly above it. Use a level.
- \* CS Steering Wheel to Chest, taken from the center of the steering wheel hub to the dummy's chest. Use a level.
- \* CD Chest to Dash, place a tape measure on the tip of the dummy's chin and rotate five inches of it downward toward the dummy to the point of contact on the transverse center of the dummy's chest. Then measure from this point to the closest point on the dashboard either between the upper part of the steering wheel between the hub and the rim, or measure to the dashboard placing the tape measure above the rim, whichever is a shorter measurement. See diagram.
- RA Steering Wheel Rim to Abdomen, taken from the bottommost point of the steering wheel rim horizontally rearward to the dummy. Use a level.
- NR Nose to Rim, taken from the tip of the dummy's nose to the closest point on the top of the steering wheel rim. Also indicate the angle this line makes with respect to the horizontal (NA).

\* Measurement used in Data Tape Reference Guide

### Descriptions of Dummy Measurements. Cont'd.

- \*<sup>1</sup> KDL,  
KDR Left and Right Knees to Dashboard, taken from the center of the knee pivot bolt's outer surface to the closest point forward acquired by swinging the tape measure in continually larger arcs until it contacts the dashboard. Also reference the angle of this measurement with respect to the horizontal for the outboard knee (KDA). See diagram.
- SH,  
SK,  
ST Striker to Hip, Knee, and Head, these measurements are to be taken in the X-Z plane measured from the forward most center point on the striker to the center of the H-point, outer knee bolt, and head target. When taking this measurement a firm device that can be rigidly connected to the striker should be used. Use a level. The angles of these measurements with respect to the horizontal should also be recorded. The measurement in the Y (transverse) direction from the striker to the H-point should also be taken (SHY). See diagram.

#### **The following measurements are to be made within a vertical transverse plane.**

- HS Head to Side Window, taken from the point where the dummy's nose meets his forehead (between his eyes) to the outside of the side window. In order to make this measurement, roll the window down to the exact height which allows a level measurement. Use a level. See diagram.
- \* AD Arm to Door, taken from the outer surface of the elbow pivot bolt on a Hybrid II dummy to the first point it hits on the door. In the case of a Hybrid III dummy, measure from the bolt on the outer biceps. When a SID is used make the measurement from the center of the bottom of the arm segment where it meets the dummy's torso.
- \* HD H-point to Door, taken from the H-point on the dummy to the closest point on the door. Use a level.
- \* HR Head to Side Header, measure the shortest distance from the point where the dummy's nose meets his forehead (between his eyes) to the side edge of the header just above the window frame, directly adjacent to the dummy.

\* Measurement used in Data Tape Reference Guide

<sup>1</sup> Only outboard measurement is referenced in Data Tape Reference Guide

### Descriptions of Dummy Measurements, Cont'd.

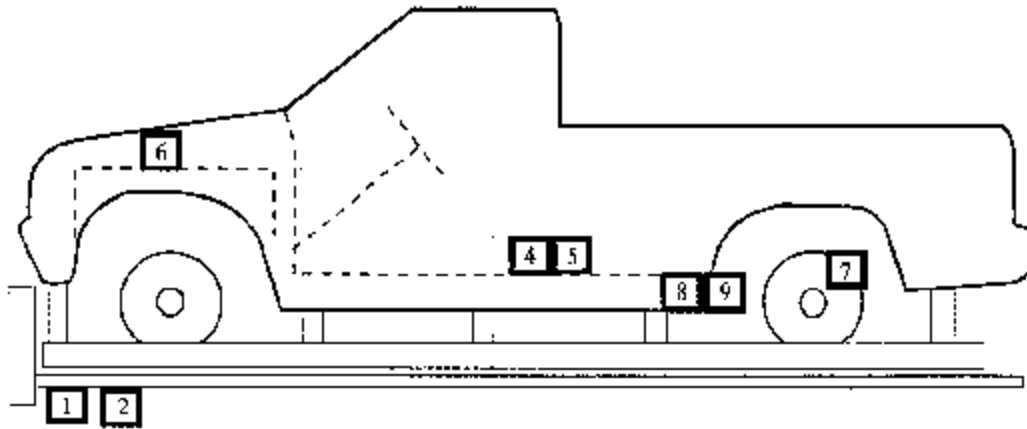
- SHY Striker to H-point, taken from a rod rigidly connected to the forward most center point on the striker to the H-point. Use a level. See diagram.
- KK Knee to Knee, for Hybrid II dummies measure the distance between knee pivot bolt head outer surfaces. For Hybrid III dummies measure the distance between the outboard knee clevis flange surfaces. (This measurement may not be exactly transverse.)

### **Angles**

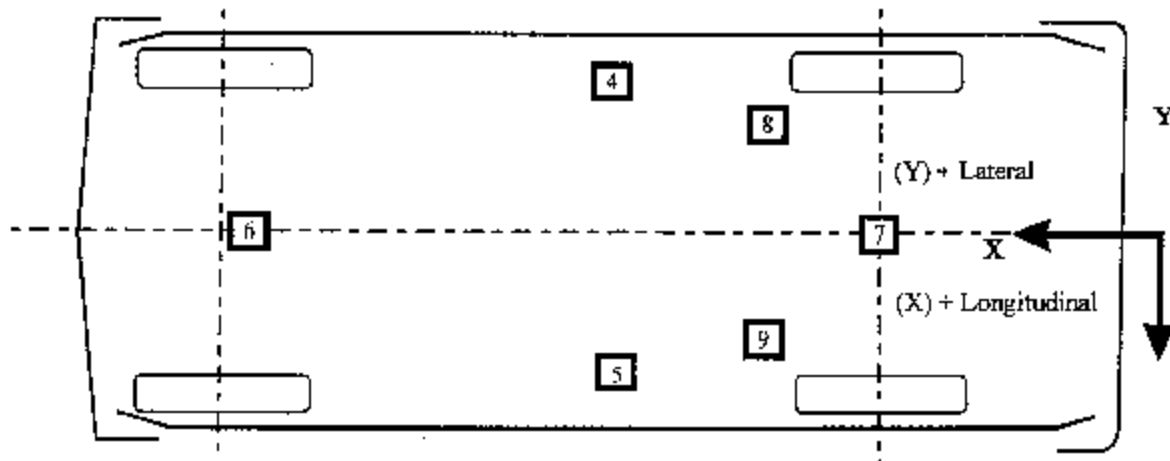
- SA Seat Back Angle, find this angle using the instructions provided by the manufacturer. If the manufacturer doesn't provide clear instructions contact the COTR.
- PA Pelvis or Femur Angle, taken by inserting the pelvic angle gauge into the H-point gauging hole on the SID or the Hybrid III dummies and taking this angle with respect to the horizontal. Measure the angle of the line connecting the H-point hole and the outer knee pivot bolt hole on a Hybrid II dummy with respect to the horizontal, to find the femur angle.
- SWA Steering Wheel Angle, find this by placing a straight edge against the steering wheel rim along the longitudinal plane. Then measure the acute angle of the straight edge with respect to the horizontal.
- SCA Steering Column Angle, measured with respect to the horizontal by placing an inclinometer on the center of the underside of the steering column.
- NA Measure the angle made when taking the measurement NR with respect to the horizontal.
- KDA Knee to Dash Angle, the angle that the measurement KD is taken at with respect to the horizontal. Only get this angle for the outboard knee. See diagram.
- WA Windshield Angle, place an inclinometer along the transverse center of the windshield exterior (measurement is made with respect to horizontal).
- TA Tibia Angle, use a straight edge to connect the dummy's knee and ankle bolts. Then place an inclinometer on the straight edge and measure the angle with respect to the horizontal.

\* Measurement used in Data Tape Reference Guide

# Vehicle Accelerometer Placement



**Side View**



**Bottom View**

# Vehicle Data Summary and Accelerometer Locations

TEST NUMBER: S030501  
No. LOCATION

	X	Y	POSITIVE DIRECTION <sup>1</sup>	NEGATIVE DIRECTION <sup>1</sup>
1 SLED ACCELERATION PRIMARY	165.6 in	-1.0 in	1.4 g @ 127.5 ms	10.1 g @ 53.1 ms
2 SLED ACCELERATION BACKUP REDUNDANT	165.6 in	-1.0 in	1.5 g @ 127.6 ms	18.2 g @ 53.0 ms
3 SLED VELOCITY MEASURED INTEGRATED <sup>2</sup>			0.1 mph @ 8.0 ms --- ---	29.4 mph @ 122.6 ms 29.8 mph @ 122.0 ms
4 LEFT BODY AT FLOORPAN LONGITUDINAL	90.4 in	-22.2 in	1.6 g @ 143.2 ms	28.6 g @ 55.0 ms
5 RIGHT BODY AT FLOORPAN LONGITUDINAL	100.2 in	22.9 in	1.7 g @ 153.8 ms	24.6 g @ 56.5 ms
6 TOP ENGINE LONGITUDINAL	161.8 in	1.1 in	3.5 g @ 130.5 ms	19.5 g @ 63.0 ms
7 REAR AXLE LONGITUDINAL	44.2 in	-0.5 in	3.3 g @ 129.0 ms	18.7 g @ 49.3 ms
8 LEFT VEHICLE FRAME LONGITUDINAL	51.5 in	-20.7 in	1.9 g @ 127.3 ms	18.6 g @ 57.8 ms

### Vehicle Data Summary and Accelerometer Locations, Cont'd.

TEST NUMBER: S030501

No. LOCATION

✕

## I

9 RIGHT VEHICLE FRAME

## LONGITUDINAL

51.6 in 20.7 in

1.25

@ 127.4 ms

bc  
cc  
cc  
—

**NEGATIVE  
DIRECTION**

CO DRIVER AIRBAG

## EVENT

20.8 ms

...

111

1 PASSENGER AIRBAG

## EVENT

20.8 ms

⋮

141

REFERENCE: X: + FORWARD FROM VEHICLE REAR SURFACE

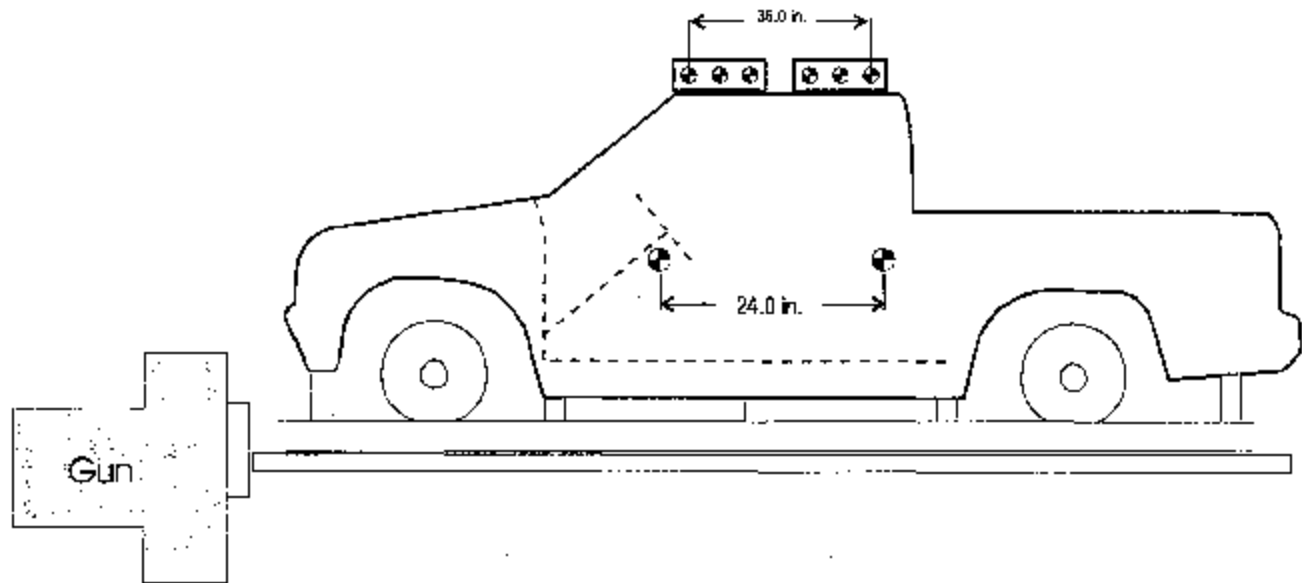
Y: + RIGHTWARD FROM SLED CARRIAGE CENTERLINE

<sup>1</sup> Sign convention per SAEJ211 March 1995.<sup>2</sup> No positive data in time frame of interest.



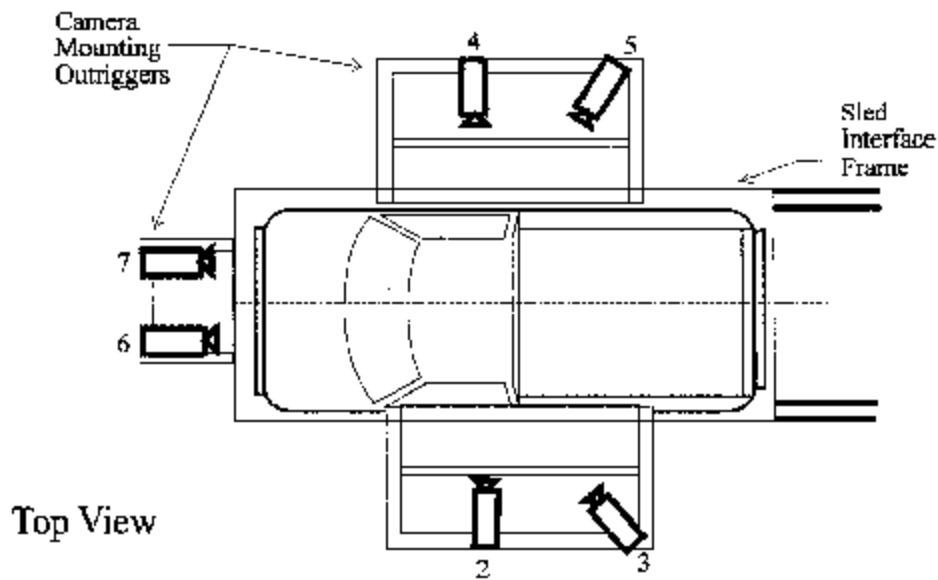
Vehicle Targeting Measurements

## REFERENCE PHOTO TARGETS

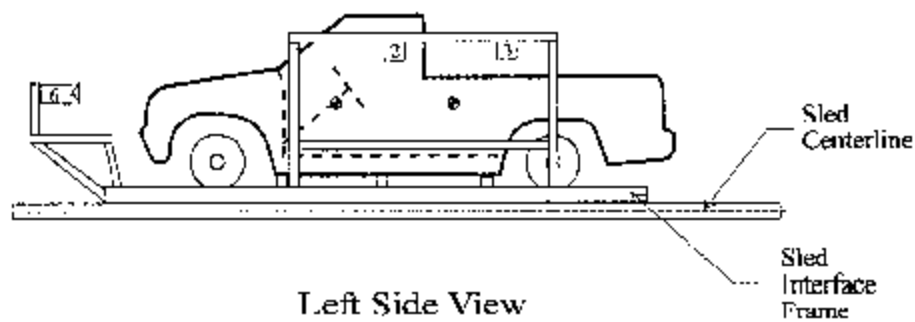


LEFT SIDE VIEW

## Camera Positions



Camera Frame Rates:  
 #1 = 24 fps  
 All Others = 1,000 fps



Motion Picture Camera Locations

Vehicle year/make/model/body style: 2003/Toyota/Tacoma/Truck

NHTSA No.: C35106

Test Number: S030501

Camera Number	View	Camera Positions <sup>1</sup>			Camera Angle <sup>2</sup>	Film Plane		Camera Lens	Film Speed
		X	Y	Z		to Head Target			
1	Real-time Pre-Doc/Panning <sup>3</sup>	93.0 in	308.9 in	44.8 in	1.3°	292.8 in		10 mm	24 frames/s
2	Left side view wide	68.8 in	71.2 in	51.9 in	-3.9°	58.5 in		8 mm	1025 frames/s
3	Left side view over shoulder	98.7 in	50.2 in	59.3 in	-15.0°	36.8 in		8 mm	905 frames/s
4	Right side view wide	70.5 in	73.5 in	51.5 in	0.9°	59.3 in		8 mm	1000 frames/s
5	Right side view over shoulder	98.6 in	49.3 in	56.0 in	-12.4°	38.0 in		8 mm	1000 frames/s
6	Front view - driver	26.3 in	12.1 in	59.2 in	-2.9°	57.1 in		8 mm	1020 frames/s
7	Front view - passenger	26.6 in	18.4 in	59.3 in	-1.3°	58.3 in		8 mm	997 frames/s

<sup>1</sup> X: Film plane to front of sled

Y: Film plane to sled centerline

Z: Film plane to top of sled

<sup>2</sup> Angle: Film plane of camera downward from horizontal plane

<sup>3</sup> Camera did not run

# FMVSS 208 Occupant Injury Data

Vehicle: 2003/Toyota/Tacoma/Truck

NHTSA No.: C35106

Date: 05/01/03

Maximum Acceleration Values: (g) <sup>1</sup>	Driver Dummy #314	Passenger Dummy #229
Head Channel X	-74.9	-80.4
Head Channel Y	19.9	-28.1
Head Channel Z	53.5	42.9
HEAD RESULTANT	89.7	89.7
Chest Channel X	-37.8	-34.0
Chest Channel Y	3.5	2.7
Chest Channel Z	21.5	19.9
CHEST RESULTANT	40.9	35.3

## Head Injury Criteria (HIC) Values:

HIC	331	456
t <sub>1</sub> = (ms)	91.84	106.00
t <sub>2</sub> = (ms)	122.88	115.52

The maximum HIC time interval from t<sub>1</sub> to t<sub>2</sub> is 36 milliseconds.

## Chest Injury Criteria (Clip) Values:

CLIP (g)	39.7	34.0
t <sub>1</sub> = (ms)	104.59	108.12
t <sub>2</sub> = (ms)	102.64	105.60
Chest Deflection (in)	1.3	0.4

<sup>1</sup> Sign convention per SAE J211, March 1995

FMVSS 208 Occupant Injury Data, Cont'd.

Vehicle: 2003/Toyota/Tacoma/Truck

NHTSA No.: C35106

Date: 05/01/03

Max. Compressive Femur Forces:	Driver Dummy #314	Passenger Dummy #229
Left Side (lbs)	1375	824
Right Side (lbs)	782	928

Neck Injury Criteria:	Driver Dummy #314	Passenger Dummy #229
Peak Flexion Bending Moment (N-m)	49.6	86.2
Peak Extension Bending Moment (N-m)	24.6	24.7
Peak Axial Tension (N)	802	332
Peak Axial Compression (N)	3324	4195
Peak Positive X-axis Shear (N)	1099	1800
Peak Negative X-axis Shear (N)	204	326

### FMVSS 208 Seat Belt Warning System Check

Vehicle Model Year/Make/Model/Body Style: 2003/Toyota/Tacoma/Truck

NHTSA No.: C35106

Technician: Ron Stoner

Date: 04/14/2003

Complete the following to determine which seat belt warning system option (S7.3(a)(1) or S7.3(a)(2)) is used. (Manufacturers may use either option.)

- A. With occupant in driver's position and lap belt in stowed position and ignition switch placed in "Start/On" position:

A.1 S7.3(a)(1)

Time duration of audible warning signal = 5 seconds  
(4 to 8 seconds)

Time duration of reminder light operation = remains on  
(no less than 60 seconds)

A.2 S7.3(a)(2)

Time duration of audible warning signal = seconds  
(4 to 8 seconds) (see 49 USCS @ 30124)

Time duration of reminder light operation = seconds  
(4 to 8 seconds)

- B. With occupant in driver's position and lap belt in use and the ignition switch placed in "Start/On" position:

B.1 S7.3(a)(1)

Time duration of audible warning signal = 0 seconds  
(audible warning should not operate)

Time duration of reminder light operation = 0 seconds  
(reminder light does not operate)

B.2 S7.3(a)(2)

Time duration of audible warning signal = seconds  
(audible warning should not operate)

Time duration of reminder light operation = seconds  
(4 to 8 seconds)

- C. Note wording of visual warning:

Fasten Seat Belt

Fasten Belt

Symbol 101



### **FMVSS 208 Readiness Indicator**

Vehicle Model Year/Make/Model/Body Style: 2003/Toyota/Tacoma/Truck

NHTSA No.: C35106

Technician: Ron Stoner

Date: 04/14/2003

An occupant restraint system that deploys in the event of a crash shall have a monitoring system with a readiness indicator. A totally mechanical system is exempt from this requirement (11/8/94 legal interpretation).

Is the system totally mechanical?

☐ Yes;

☒ No

Describe the location of the readiness indicator: Bottom left on instrument cluster

Is the readiness indicator clearly visible to the driver?

☒ Yes;

☐ No

Is a list of the elements in the occupant restraint system, being monitored by the readiness indicator, provided?

☒ Yes;

☐ No

### FMVSS 208 Air Bag Labels

Vehicle Model Year/Make/Model/Body Style: 2003/Toyota/Tacoma/Truck

NHTSA No.: C35106

Technician: Ron Stoner

Date: 04/14/2003

1. Air Bag Maintenance Label and Owner's Manual Instructions:

1.1 Does the manufacturer recommend periodic maintenance or replacement of the air bag? ☐ Yes (Go to 1.2)

☒ No (Go to 2)

1.2 Does the Vehicle have a maintenance or replacement label?

☐ Yes-Pass

☐ No-Fail

1.3 Does the label contain one of the following?

☐ Yes-Pass

☐ No-Fail

☐ Schedule on label specifies month and year

☐ Schedule on label specifies vehicle mileage

☐ Schedule on label specifies interval measured from date on certification label

1.4 Is the label permanently affixed within the passenger compartment?

☐ Yes-Pass

☐ No-Fail

1.5 Is the label lettered in English?

☐ Yes-Pass

☐ No-Fail

1.6 Is the label in block capitals and numerals?

☐ Yes-Pass

☐ No-Fail

1.7 Are the letters and numerals at least 3/32 inch high?

☐ Yes-Pass

☐ No-Fail

1.8 Does the owner's manual set forth the recommended schedule for maintenance or replacement?

☐ Yes-Pass

☐ No-Fail

2. Does the owner's manual: (S4.5.1 (f))

2.1 Include a description of the vehicle's air bag system in an easily understandable format? ☒ Yes ☐ No-Fail

2.2 Include a statement that the vehicle is equipped with an air bag and a lap/shoulder belt at the front outboard seating positions? ☒ Yes ☐ No-Fail



**FMVSS 208 Air Bag Labels, Cont'd.**

- 2.3 Include a statement that the air bag is a supplemental restraint at the front outboard seating positions? ☒ Yes ☐ No-Fail
- 2.4 Emphasize that all occupants, including the driver, should always wear their seat belts whether or not an air bag is also provided at their seating positions to minimize the risk of severe injury or death in the event of a crash? ☒ Yes ☐ No-Fail
- 2.5 Provide any necessary precautions regarding the proper positioning of occupants, including children, at seating positions equipped with air bags to insure maximum safety protection for those occupants? ☒ Yes ☐ No-Fail
- 2.6 Explain that no objects should be place over or near the air bag on the steering wheel or on the instrument panel, because any such objects could cause harm if the vehicle is in a crash severe enough to cause the air bag to inflate? ☒ Yes ☐ No-Fail

**3. Does the Vehicle:**

- 3.1 Provide an automatic means to ensure that the air bag does not deploy when a child seat or child with a total mass of 30 kg or less is present on the front outboard seat? ☐ Yes ☒ No
- 3.2 Incorporate sensors, other than or in addition to weight sensors, which automatically prevent the passenger air bag from deploying in situations in which it might have an adverse effect on infants in rear-facing child seat, and unbelted or improperly belted children? ☐ Yes ☒ No
- 3.3 Have a passenger air bag designed to deploy in a manner that does not create a risk of serious injury to infants in rear-facing child seats, and unbelted or improperly belted children? ☐ Yes ☒ No

**If yes to 3.1, or 3.2, or 3.3, the vehicle is not required to have a Sun Visor Warning Label (S4.5.1(b)), an air bag alert label (S4.5.1(c)) or a label on the dash (S4.5.1(e)) and this check sheet is complete. (S4.5.1) If no to 3.1, 3.2, and 3.3, go to 4.**

**FMVSS 208 Air Bag Labels, Cont'd.**

4. Sun Visor Warning Label

- 4.1 Is the label permanently affixed (may be permanent marking or molding) to either side of the sun visor at each front outboard seating position with an air bag?

Driver side ☒ Yes-Pass ☐ No-Fail

Passenger side ☒ Yes-Pass ☐ No-Fail

- 4.2 Does the label conform in content (vehicles without back seats may omit the statement: "The BACK SEAT is the SAFEST place for children.") (S4.5.1(b)(2)(v)) to the label shown in either Figure 6a or 6b as appropriate at each front outboard seating position with an air bag? (S4.5.1(b)(2))

4.2.1 Dual air bags

Driver side ☒ Yes-Pass ☐ No-Fail

Passenger side ☒ Yes-Pass ☐ No-Fail

- 4.2.2 Vehicles with driver air bag ONLY - either 4.2.1 or 4.2.2 is applicable, not both. (S4.5.1(b)(2)(iv))

- 4.2.2.1 Does the label conform on content to the label shown in either Figure 6a or 6b as appropriate?

☒ N/A

Driver side ☐ Yes-Pass ☐ No-Fail

- 4.2.2.2 Does the label conform in content to the label shown in Figure 6a where the label can be modified to omit the pictogram and the message may read:

DEATH or SERIOUS INJURY can occur.

- . Sit as far back as possible from the air bag.
- . ALWAYS use SEAT BELTS and CHILD RESTRAINTS.
- . The BACK SEAT is the SAFEST place for children.

☒ N/A

Driver side ☐ Yes-Pass ☐ No-Fail

FMVSS 208 Air Bag Labels, Cont'd.

**SUN VISOR LABEL VISIBLE WHEN VISOR IS IN DOWN POSITION**  
**LABEL OUTLINE, VERTICAL AND HORIZONTAL LINE BLACK**

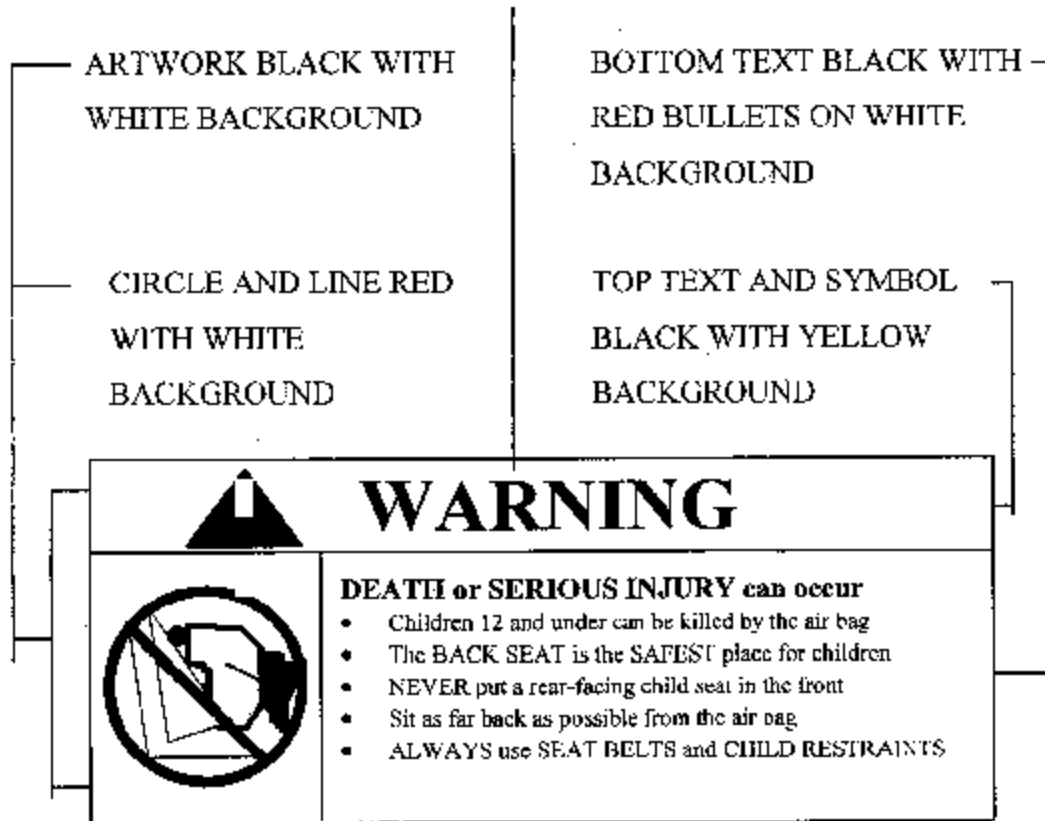


Figure 6a  
(S4.5.1(h)(2))

**FMVSS 208 Air Bag Labels, Cont'd.**

**SUN VISOR LABEL VISIBLE WHEN VISOR IS IN DOWN POSITION**

LABEL OUTLINE, VERTICAL AND HORIZONTAL LINE BLACK

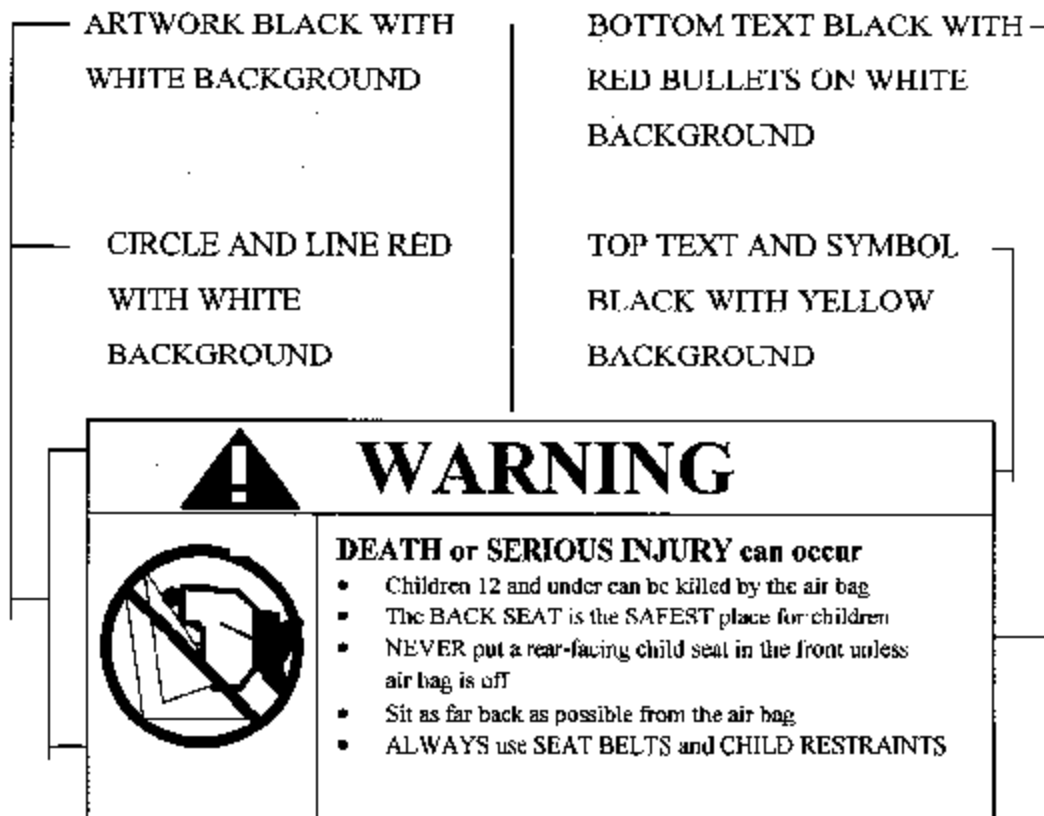


Figure 6b  
(S4.5.1(b)(2))

- 4.3 Is the driver side label heading area yellow with the word "warning" and the alert symbol in black? (S4.5.1.(b)(2)(i))

Driver side	<input checked="" type="checkbox"/> Yes-Pass	<input type="checkbox"/> No-Fail
Passenger side	<input checked="" type="checkbox"/> Yes-Pass	<input type="checkbox"/> No-Fail

- 4.4 Is the message white with black text? (S4.5.1 (b)(2)(ii))

Driver side	<input checked="" type="checkbox"/> Yes-Pass	<input type="checkbox"/> No-Fail
Passenger side	<input type="checkbox"/> No air bag	<input checked="" type="checkbox"/> Yes-Pass
		<input type="checkbox"/> No-Fail

- 4.5 Is the message area at least 30 cm<sup>2</sup>? (S4.5.1(b)(2)(ii))

Actual message area, driver side 30.9 cm<sup>2</sup>

Actual message area, passenger side 30.9 cm<sup>2</sup>

Driver side	<input checked="" type="checkbox"/> Yes-Pass	<input type="checkbox"/> No-Fail
Passenger side	<input type="checkbox"/> No air bag	<input checked="" type="checkbox"/> Yes-Pass
		<input type="checkbox"/> No-Fail

# **FMVSS 208 Air Bag Labels, Cont'd.**

- 4.6 Is the pictogram black with a red circle and slash on a white background? (S4.5.1(b)(2)(ii)) & (S4.5.1(b)(2)(iv))
- For vehicles with driver side air bag ONLY ☐ N/A
- Driver side ☒ Yes-Pass ☐ No-Fail
- Passenger side ☐ No air bag ☒ Yes-Pass ☐ No-Fail
- 4.7 Is the pictogram at least 30 mm in diameter? (S4.5.1(b)(2)(iii))
- Actual diameter, driver side 30 mm
- Actual diameter, passenger side 30 mm
- For vehicles with driver side air bag ONLY ☐ N/A
- Driver side ☒ Yes-Pass ☐ No-Fail
- Passenger side ☐ No air bag ☒ Yes-Pass ☐ No-Fail
- 4.8 Is the same side of the sun visor to which the sun visor label is affixed free of other information with the exception of an air bag maintenance label? (S4.5.1(b)(3)) and/or a rollover warning label specified in 49CFR Part 575 (S575.105)?
- Driver side ☒ Yes-Pass ☐ No-Fail
- Passenger side ☐ No air bag ☒ Yes-Pass ☐ No-Fail
- 4.9 Is the sun visor free of other information about air bags or the need to wear seat belts with the exception of the air bag alert label or the utility vehicle label?
- Driver side ☒ Yes-Pass ☐ No-Fail
- Passenger side ☐ No air bag ☒ Yes-Pass ☐ No-Fail

## 5. Air Bag Alert Label

- 5.1 Is the Sun Visor Warning Label visible when the sun visor is in the stowed position?
- Driver ☒ Yes ☐ No
- Passenger ☒ Yes ☐ No

**If yes, go to 6**

- 5.2 Does the label conform in content to the label shown in Figure 6c? (S4.5.1(c)(2)) ☐ Yes-Pass ☐ No-Fail

**SUN VISOR LABEL VISIBLE WHEN VISOR IS IN UP POSITION**

Circle and Line Red with White Background

Artwork Black with White Background

Text Yellow with Black Background

**Figure 6c**  
(S4.5.1(c)(2))



**FMVSS 208 Air Bag Labels, Cont'd.**

- 5.3 Is the message area black with yellow text? (S4.5.1(c)(2)(i))  
☐ Yes-Pass ☐ No-Fail
- 5.4 Is the message area at least 20 cm<sup>2</sup>? (S4.5.1(c)(2)(i))  
Actual message area N/A cm<sup>2</sup> ☐ Yes-Pass ☐ No-Fail
- 5.5 Is the pictogram black with a red circle and slash on a white background?  
(S4.5.1(c)(2)(ii))

For vehicles with driver side air bag ONLY ☒ N/A  
☐ Yes-Pass ☐ No-Fail

- 5.6 Is the pictogram at least 20 mm in diameter? (S4.5.1(c)(2)(ii))  
Actual diameter is N/A mm

For vehicles with driver side air bag ONLY ☒ N/A  
☐ Yes-Pass ☐ No-Fail

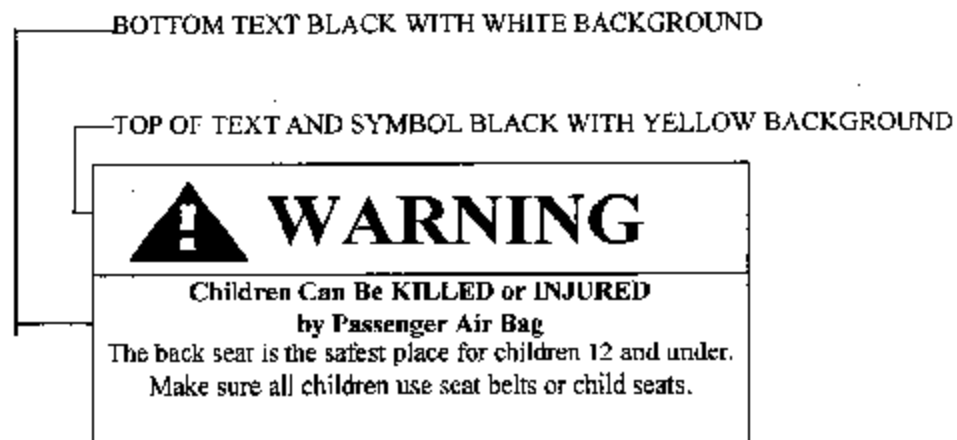
6. Label On the Dash

- 6.1 Does the vehicle have a passenger air bag?  
☒ Yes ☐ No

**If no, this checklist is complete.**

- 6.2 Does the vehicle have a label on the dash or steering wheel hub? (S4.5.1(e))  
☒ Yes-Pass ☐ No-Fail
- 6.3 Does the label conform in content (vehicles without back seats may omit the statement: "The back seat is the safest place for children 12 and under.") (S4.5.1(e)(iii)) to the label shown in Figure 7? (S4.5.1(e))  
☒ Yes-Pass ☐ No-Fail

**Figure 7**  
(S4.5.1(e))



**FMVSS 208 Air Bag Labels, Cont'd.**

- 6.4 Is the heading area yellow with the word "warning" and the alert symbol in black?  
(S4.5.1(e)(i)) ☒ Yes-Pass ☐ No-Fail
- 6.5 Is the message white with black text? (S4.5.1(e)(ii))  
☒ Yes-Pass ☐ No-Fail
- 6.6 Is the message area at least 30 cm<sup>2</sup>? (S4.5.1(e)(ii))  
Actual message area 30 cm<sup>2</sup> ☒ Yes-Pass ☐ No-Fail

**FMVSS 208 Rear Outboard Seating Position Seat Belts**

Vehicle Model Year/Make/Model/Body Style: 2003/Toyota/Tacoma/Truck

NHTSA No.: C35106

Technician: Ron Stoner

Date: 05/01/03

Do all rear outboard seating positions have type 2 seat belts?

☐ Yes;

☐ No;

☒ N/A (No Back Seat)

If No, describe the seat belt installed, the seat location, and any other information about the seat that would explain why a type 2 belt was not installed.



**FMVSS 208 Lap Belt Lockability**

Passenger cars, trucks, buses, and multipurpose passenger vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)

Complete one of these forms for **each** designated seating position with forward-facing seats, other than the driver's seat, or seats that can be adjusted to forward-facing **and** that has seat belt retractors that are not automatic retractors. (S7.1.1.5(c))

Vehicle Model Year/Make/Model/Body Style: 2003/Toyota/Tacoma/Truck

NHTSA No.: C35106

Technician: Ron Stoner

Date: 04/14/2003

Designated Seating Position: Right Front

- ☒1. Record test seat position: Middle  
(S7.1.1.5(c)(1)) (Any position is acceptable.)
- ☒2. Buckle the seat belt. (S7.1.1.5(c)(1))
- ☒3. Complete any procedures recommended in the vehicle owner's manual to activate any locking feature. (S7.1.1.5(c)(1))
- ☒4. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part to the vehicle?  
(S7.1.1.5(a)) ☒ Yes-Pass ☐ No-Fail
- ☒5. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT require inverting, twisting or deforming of the belt webbing? (S7.1.1.5(a)) ☒ Yes-Pass ☐ No-Fail
- ☒6. Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing?  
If yes, go to 6.1. If no, go to 7. ☒ Yes ☐ No
- 6.1 Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b)) ☒ Yes-Pass ☐ No-Fail

**FMVSS 208 Lap Belt Lockability, Cont'd.**

Vehicle Model Year/Make/Model/Body Style: 2003/Toyota/Tacoma/Truck

NHTSA No.: C35106

Technician: Ron Stoner

Date: 04/14/2003

Designated Seating Position: Right Front

- ☒ 7. Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2))
- ☒ 8. Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))
- ☒ 9. Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2))
- ☒ 10. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2)) Measured distance between A and B 58.7 inches.
- ☒ 11. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))
- ☒ 12. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device in figure 5. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4)) Measured force application angle 10 degrees. (Spec. 5-15 degrees)
- ☒ 13. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4)) Measured distance between A and B 23.2 inches.

**FMVSS 208 Lap Belt Lockability, Cont'd.**

Vehicle Model Year/Make/Model/Body Style: 2003/Toyota/Tacoma/Truck

NHTSA No.: C35106

Technician: Ron Stoner

Date: 04/14/2003

Designated Seating Position: Right Front

- ☒ 14. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))

Record onset rate 25 lbs/sec (spec. 10 ~50 lb/sec)

The measured distance between A and B is 23.6 inches (S7.1.1.5(c)(6))

- ☒ 15. Subtract the measurement in 13 from the measurement in 14. Is the difference 2 inches or less? (S7.1.1.5 (c)(7))

14-13= 0.4 inches

☒ Yes-Pass

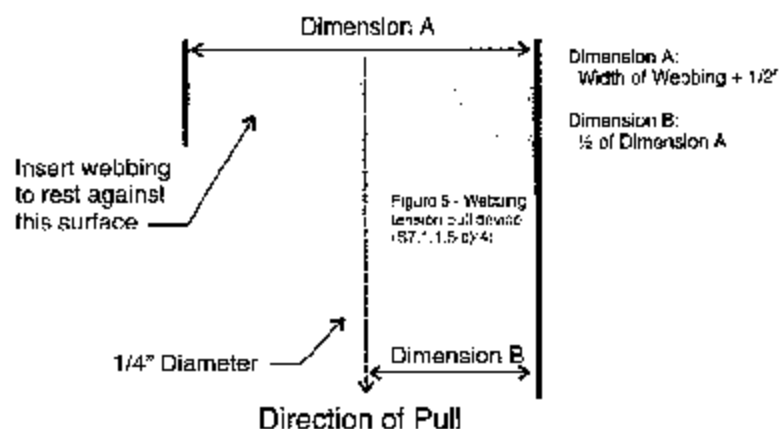
☐ No-Fail

- ☒ 16. Subtract the measurement in 14 from the measurement in 10. Is the difference 3 inches or more? (S7.1.1.5(c)(8))

10-14= 35.1 inches.

☒ Yes-Pass

☐ No-Fail



### FMVSS 208 Lap Belt Lockability

Passenger cars, trucks, buses, and multipurpose passenger vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)

Complete one of these forms for **each** designated seating position with forward-facing seats, other than the driver's seat, or seats that can be adjusted to forward-facing and that has seat belt retractors that are not automatic retractors. (S7.1.1.5(c))

Vehicle Model Year/Make/Model/Body Style: 2003/Toyota/Tacoma/Truck

NHTSA No.: C35106

Technician: Ron Stoner

Date: 04/14/2003

Designated Seating Position: Middle Front; Does not apply - lap belt only - no retractor

- ☐ 1. Record test seat position: Middle  
(S7.1.1.5(c)(1)) (Any position is acceptable.)
- ☐ 2. Buckle the seat belt. (S7.1.1.5(c)(1))
- ☐ 3. Complete any procedures recommended in the vehicle owner's manual to activate any locking feature. (S7.1.1.5(c)(1))
- ☐ 4. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part to the vehicle? (S7.1.1.5(a)) ☐ Yes-Pass ☐ No-Fail
- ☐ 5. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT require inverting, twisting or deforming of the belt webbing? (S7.1.1.5(a)) ☐ Yes-Pass ☐ No-Fail
- ☐ 6. Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing?

If yes, go to 6.1. If no, go to 7.

☐ Yes

☐ No

- 6.1 Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b)) ☐ Yes-Pass ☐ No-Fail

**FMVSS 208 Lap Belt Lockability, Cont'd.**

Vehicle Model Year/Make/Model/Body Style: 2003/Toyota/Tacoma/Truck

NHTSA No.: C35106

Technician: Ron Stoner

Date: 04/14/2003

Designated Seating Position: Middle Front

- ☐ 7. Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2))
- ☐ 8. Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))
- ☐ 9. Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2))
- ☐ 10. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2)) Measured distance between A and B \_\_\_\_ inches.
- ☐ 11. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))
- ☐ 12. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device in figure 5. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4)) Measured force application angle \_\_ degrees. (Spec. 5-15 degrees)
- ☐ 13. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4)) Measured distance between A and B \_\_\_\_ inches.

**FMVSS 208 Lap Belt Lockability, Cont'd.**

Vehicle Model Year/Make/Model/Body Style: 2003/Toyota/Tacoma/Truck

NHTSA No.: C35106

Technician: Ron Stoner

Date: 04/14/2003

Designated Seating Position: Middle Front

- ☐ 14. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))

Record onset rate \_\_\_ lbs/sec (spec. 10 ~50 lb/sec)

The measured distance between A and B is \_\_\_ inches (S7.1.1.5(c)(6))

- ☐ 15. Subtract the measurement in 13 from the measurement in 14. Is the difference 2 inches or less? (S7.1.1.5 (c)(7))

14-13= \_\_\_ inches

☐ Yes-Pass

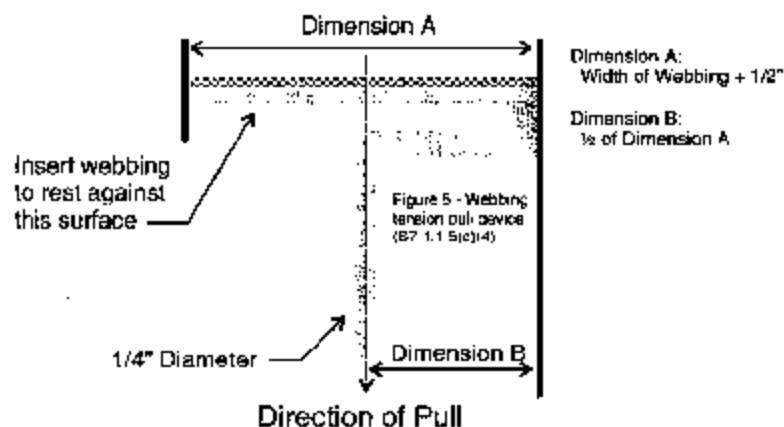
☐ No-Fail

- ☐ 16. Subtract the measurement in 14 from the measurement in 10. Is the difference 3 inches or more? (S7.1.1.5(c)(8))

10-14= 35.1 inches.

☐ Yes-Pass

☐ No-Fail



**FMVSS 208 Seat Belt Comfort And Convenience Test**  
**Belt Contact Force (S7.4.3)**

Test Vehicle NHTSA No.: C35106  
Vehicle Model Year/Make/Model/Body Style: 2003/Toyota/Tacoma/Truck  
Designated Seating Position Tested: Left Front  
Date of Comfort and Convenience Check: 04/11/2003  
Technician Performing Check: Scott Bazzle  
GVWR: 4250 pounds

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

1. Does the vehicle incorporate a webbing tension-relieving device?

☐ Yes-go to latchplate access  
☒ No-continue with this check sheet

2. Adjustable seats are in the adjustment position midway between the forward most and rearmost positions. If an adjustment position does not exist midway between the forward most and rearmost positions, the next closest adjustment position to the rear of the midpoint is used. (S8.1.2)

☒ Check  
☐ N/A

3. If separately adjustable in a vertical direction, the seats are at the lowest position.

☐ Check  
☒ N/A

4. Place adjustable seat backs in the manufacturer's nominal design riding position in the manner specified by the manufacturer.

☐ Check  
☒ N/A

5. Place any adjustable anchorages at the manufacturer's nominal design position for a 50<sup>th</sup> percentile adult male (50M) occupant. This information will be furnished by the COTR.

☒ Check  
☐ N/A

**FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.**

**Belt Contact Force (S7.4.3)**

6. Place each adjustable head restraint in its highest adjustment position.

☐ Check  
☒ N/A

7. Adjustable lumbar supports are positioned so that the lumbar support is in its lowest adjustment position. (S8.1.3)

☐ Check  
☒ N/A

8. Position the test dummy according to the dummy position placement instructions in Appendix B of the Laboratory Test Procedure.

☒ Check

9. Fasten the seat belt latch. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10.8) Measure the contact force exerted by the belt webbing on the dummy's chest. Contact the COTR if the contact force exceeds 0.7 pounds. Contact force is 0.6 pounds.

☒ 0.0 to 0.7 pounds - Pass  
☐ greater than 0.7 pounds - FAIL\*

\* If the seat belts are voluntarily installed by the manufacturer they do not have to comply.



**FMVSS 208 Seat Belt Comfort And Convenience Test**

**Belt Contact Force (S7.4.3)**

Test Vehicle NHTSA No.: C35106

Vehicle Model Year/Make/Model/Body Style: 2003/Toyota/Tacoma/Truck

Designated Seating Position Tested: Right Front

Date of Comfort and Convenience Check: 04/11/2003

Technician Performing Check: Scott Bazzle

GVWR: 4250 pounds

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

1. Does the vehicle incorporate a webbing tension-relieving device?

☐ Yes-go to latchplate access  
☒ No-continue with this check sheet

2. Adjustable seats are in the adjustment position midway between the forward most and rearmost positions. If an adjustment position does not exist midway between the forward most and rearmost positions, the next closest adjustment position to the rear of the midpoint is used. (S8.1.2)

☒ Check  
☐ N/A

3. If separately adjustable in a vertical direction, the seats are at the lowest position.

☐ Check  
☒ N/A

4. Place adjustable seat backs in the manufacturer's nominal design riding position in the manner specified by the manufacturer.

☐ Check  
☒ N/A

5. Place any adjustable anchorages at the manufacturer's nominal design position for a 50<sup>th</sup> percentile adult male (50M) occupant. This information will be furnished by the COTR.

☒ Check  
☐ N/A

**FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.**

**Belt Contact Force (S7.4.3)**

6. Place each adjustable head restraint in its highest adjustment position.

☐ Check  
☒ N/A

7. Adjustable lumbar supports are positioned so that the lumbar support is in its lowest adjustment position. (S8.1.3)

☐ Check  
☒ N/A

8. Position the test dummy according to the dummy position placement instructions in Appendix B of the Laboratory Test Procedure.

☒ Check

9. Fasten the seat belt latch. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10.8) Measure the contact force exerted by the belt webbing on the dummy's chest. Contact the COTR if the contact force exceeds 0.7 pounds. Contact force is 0.6 pounds.

☒ 0.0 to 0.7 pounds - Pass  
☐ greater than 0.7 pounds - FAIL\*

\* If the seat belts are voluntarily installed by the manufacturer they do not have to comply.

**FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.**  
**Latchplate Access (S7.4.4)**

Test Vehicle NHTSA No.: C35106  
Vehicle Model Year/Make/Model/Body Style: 2003/Toyota/Tacoma/Truck  
Designated Seating Position Tested: Left Front  
Date of Comfort and Convenience Check: 04/14/2003  
Technician Performing Check: Ron Stoner  
GVWR: 4250 pounds

Test all front outboard seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

1. Position the seat in its forward most adjustment position. ☒ Check
  
2. Position the test dummy using the procedures in Appendix B of the Laboratory Test Procedure. (Some modifications to the positioning procedure may need to be made because the seat is in its forward most position.) ☒ Check
  
3. Position the adjustable seat belt anchorage in the manufacturer's nominal design position for a 50<sup>th</sup> percentile adult male occupant. ☒ Check
  
4. Attach the inboard and outboard reach string following the instructions on Figure 1C of the Laboratory Test Procedure. ☒ Check
  
5. Place the latch plate in the stowed position. ☒ Check
  
6. Extend each line backward and outboard to generate arcs of the reach envelope of the test dummy's arms. Is the latchplate within the reach envelope?  
☒ Yes-Pass; ☐ No-Fail
  
7. Using the clearance test block, specified in Figure 2C of the Laboratory Test Procedure, determine if there is sufficient clearance between the vehicle seat and the side of vehicle to allow the test block to move unhindered to the latchplate or buckle.  
☒ Yes-Pass; ☐ No-Fail

**FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.**

**Latchplate Access (S7.4.4)**

Test Vehicle NHTSA No.: C35106

Vehicle Model Year/Make/Model/Body Style: 2003/Toyota/Tacoma/Truck

Designated Seating Position Tested: Right Front

Date of Comfort and Convenience Check: 04/14/2003

Technician Performing Check: Ron Stoner

GVWR: 4250 pounds

Test all front outboard seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

1. Position the seat in its forward most adjustment position. ☒ Check
2. Position the test dummy using the procedures in Appendix B of the Laboratory Test Procedure. (Some modifications to the positioning procedure may need to be made because the seat is in its forward most position.) ☒ Check
3. Position the adjustable seat belt anchorage in the manufacturer's nominal design position for a 50<sup>th</sup> percentile adult male occupant. ☒ Check
4. Attach the inboard and outboard reach string following the instructions on Figure 1C of the Laboratory Test Procedure. ☒ Check
5. Place the latch plate in the stowed position. ☒ Check
6. Extend each line backward and outboard to generate arcs of the reach envelope of the test dummy's arms. Is the latchplate within the reach envelope?  
☒ Yes-Pass; ☐ No-Fail
7. Using the clearance test block, specified in Figure 2C of the Laboratory Test Procedure, determine if there is sufficient clearance between the vehicle seat and the side of vehicle to allow the test block to move unhindered to the latchplate or buckle.  
☒ Yes-Pass; ☐ No-Fail

**FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.**

**Retraction (S7.4.5)**

Test Vehicle NHTSA No.: C35106

Vehicle Model Year/Make/Model/Body Style: 2003/Toyota/Tacoma/Truck

Designated Seating Position Tested: Left Front

Date of Comfort and Convenience Check: 04/14/2003

Technician Performing Check: Ron Stoner

GVWR: 4250 pounds

Test all front outboard seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

1. Is the vehicle a passenger car or walk-in van-type vehicle? ☐ Yes

☒ No

If yes, go to seat belt guides and hardware.

2. Adjustable seats are in the adjustment position midway between the forward most and rearmost positions. If an adjustment position does not exist midway between the forward most and rearmost positions, the next closest adjustment position to the rear of the midpoint is used. (S8.1.2) ☒ Check

3. If separately adjustable in a vertical direction, the seats are at the lowest position. ☒ Check

4. Place any adjustable seat backs in the manufacturer's nominal design riding position in the manner specified by the manufacturer. ☒ Check

5. Place any adjustable anchorages at the manufacturer's nominal design position for a 50<sup>th</sup> percentile adult male (50M) occupant. This information will be furnished by the COIR. ☒ Check

6. Place each adjustable head restraint in its highest adjustment position. ☒ Check

**FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Conf'd.**

**Retraction (S7.4.5)**

7. Adjustable lumbar supports are positioned so that the lumbar support is in its lowest adjustment position. (S8.1.3) ☒ Check
8. Use anthropomorphic test dummies whose arms have been removed and position the dummies in the front outboard designated seating positions according to instructions in Appendix B of the Laboratory Test Procedure. ☒ Check
9. Restrain the dummies using the belt systems for the position being tested. ☒ Check
10. Stow outboard armrests that are capable of being stowed. ☒ Check
11. Check the statement that applies to this test vehicle:
- (A) The torso and lap belt webbing of the seat belt system automatically retracts to a stowed position when the adjacent vehicle door is in an open position and the seat belt latchplate is released. ☒ Pass
- (B) The torso and lap belt webbing of the seat belt system automatically retracts when the seat belt latchplate is released. ☒ Pass
- (C) Neither A or B apply. ☐ Fail
12. With the webbing and hardware in the stowed position are the webbing and hardware prevented from being pinched when the door is closed? ☒ Yes-Pass; ☐ No-Fail
13. If this test vehicle has an open body (without doors) and has a belt system with a tension-relieving device, does the belt system fully retract when the tension-relieving device is deactivated? ☒ N/A  
☐ Yes-Pass; ☐ No-Fail

**FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.**

**Retraction (S7.4.5)**

Test Vehicle NHTSA No.: C35106  
Vehicle Model Year/Make/Model/Body Style: 2003/Toyota/Tacoma/Truck  
Designated Seating Position Tested: Right Front  
Date of Comfort and Convenience Check: 04/14/2003  
Technician Performing Check: Ron Stoner  
GVWR: 4250 pounds

Test all front outboard seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

1. Is the vehicle a passenger car or walk-in van-type vehicle? ☐ Yes  
☒ No

If yes, go to seat belt guides and hardware.

2. Adjustable seats are in the adjustment position midway between the forward most and rearmost positions. If an adjustment position does not exist midway between the forward most and rearmost positions, the next closest adjustment position to the rear of the midpoint is used. (S8.1.2) ☒ Check
3. If separately adjustable in a vertical direction, the seats are at the lowest position. ☒ Check
4. Place any adjustable seat backs in the manufacturer's nominal design riding position in the manner specified by the manufacturer. ☒ Check
5. Place any adjustable anchorages at the manufacturer's nominal design position for a 50<sup>th</sup> percentile adult male (50M) occupant. This information will be furnished by the COTR. ☒ Check
6. Place each adjustable head restraint in its highest adjustment position. ☒ Check

**FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.**

**Retraction (S7.4.5)**

7. Adjustable lumbar supports are positioned so that the lumbar support is in its lowest adjustment position. (S8.1.3) ☒ Check
8. Use anthropomorphic test dummies whose arms have been removed and position the dummies in the front outboard designated seating positions according to instructions in Appendix B. ☒ Check
9. Restrain the dummies using the belt systems for the position being tested. ☒ Check
10. Stow outboard armrests that are capable of being stowed. ☒ Check
11. Check the statement that applies to this test vehicle:
- (A) The torso and lap belt webbing of the seat belt system automatically retracts to a stowed position when the adjacent vehicle door is in an open position and the seat belt latchplate is released. ☒ Pass
- (B) The torso and lap belt webbing of the seat belt system automatically retracts when the seat belt latchplate is released. ☒ Pass
- (C) Neither A or B apply. ☐ Fail
12. With the webbing and hardware in the stowed position are the webbing and hardware prevented from being pinched when the door is closed? ☒ Yes-Pass; ☐ No-Fail
13. If this test vehicle has an open body (without doors) and has a belt system with a tension-relieving device, does the belt system fully retract when the tension-relieving device is deactivated? ☒ N/A  
☐ Yes-Pass; ☐ No-Fail



**FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.**

**Seat Belt Guides And Hardware (S7.4.6)**

Test Vehicle NHTSA No.: C35106

Vehicle Model Year/Make/Model/Body Style: 2003/Toyota/Tacoma/Truck

Designated Seating Position Tested: Left Front

Date of Comfort and Convenience Check: 04/14/2003

Technician Performing Check: Ron Stoner

GVWR: 4250 pounds

Test seat belts except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

The requirements for accessibility **DO NOT APPLY** to:

- A. Seats whose seat cushions are movable so that the seat back serves a function other than seating (S7.4.6.1(b)).
- B. Seats which are removable.
- C. Seats that are movable so that the space formerly occupied by the seat can be used for a secondary function.

If the seats in this vehicle are different than the criteria above, determine the following:

- 1. Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back?  
☒ Yes: go to 2.  
☐ No: this form is complete.
- 2. Does one of the following three parts, the seat belt latchplate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)?  
☒ Yes-Pass; ☐ No-Fail
- 3. Are the remaining two seat belt parts accessible under normal conditions?  
☒ Yes-Pass; ☐ No-Fail

**FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.**

**Seat Belt Guides And Hardware (S7.4.6)**

4. The buckle and latchplate do not pass through the guides or conduits provided and fall behind the seat when the following events occur in order:

(A) The belt is completely retracted or, if the belt is nonretractable, the belt is unlatched.  
☒ Check

(B) The seat is moved to any position to which it is designed to be adjusted.  
☒ Check

(C) The seat back, if foldable, is folded forward as far as possible and then moved backward into position.  
☒ Check  
☒ Yes-Pass; ☐ No-Fail

5. Is the inboard receptacle end of the seat belt assembly, installed in the outboard designated seating position, accessible with the center arm rest in any position to which it can be adjusted (without moving the armrest)?  
☐ Yes-Pass; ☐ No-Fail

N/A. no armrest

**FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.**

**Seat Belt Guides And Hardware (S7.4.6)**

Test Vehicle NHTSA No.: C35106

Vehicle Model Year/Make/Model/Body Style: 2003/Toyota/Tacoma/Truck

Designated Seating Position Tested: Front Right Front

Date of Comfort and Convenience Check: 04/14/2003

Technician Performing Check: Ron Stoner

GVWR: 4250 pounds

Test seat belts except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

The requirements for accessibility **DO NOT APPLY** to:

- A. Seats whose seat cushions are movable so that the seat back serves a function other than seating (S7.4.6.1(b)).
- B. Seats which are removable.
- C. Seats that are movable so that the space formerly occupied by the seat can be used for a secondary function.

If the seats in this vehicle are different than the criteria above, determine the following:

- 1. Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back?  
☒ Yes: go to 2.  
☐ No: this form is complete.
- 2. Does one of the following three parts, the seat belt latchplate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)?  
☒ Yes-Pass; ☐ No-Fail
- 3. Are the remaining two seat belt parts accessible under normal conditions?  
☒ Yes-Pass; ☐ No-Fail

**FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.**

**Seat Belt Guides And Hardware (S7.4.6)**

4. The buckle and latchplate do not pass through the guides or conduits provided and fall behind the seat when the following events occur in order:

(A) The belt is completely retracted or, if the belt is nonretractable, the belt is unlatched.

☒ Check

(B) The seat is moved to any position to which it is designed to be adjusted.

☒ Check

(C) The seat back, if foldable, is folded forward as far as possible and then moved backward into position.

☒ Check

☒ Yes-Pass;

☐ No-Fail

5. Is the inboard receptacle end of the seat belt assembly, installed in the outboard designated seating position, accessible with the center arm rest in any position to which it can be adjusted (without moving the armrest)?

☐ Yes-Pass;

☐ No-Fail

N/A, no armrest

**FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.**

**Seat Belt Guides And Hardware (S7.4.6)**

Test Vehicle NHTSA No.: C35106

Vehicle Model Year/Make/Model/Body Style: 2003/Toyota/Tacoma/Truck

Designated Seating Position Tested: Center Front

Date of Comfort and Convenience Check: 04/14/2003

Technician Performing Check: Ron Stoner

GVWR: 4250 pounds

Test seat belts except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

The requirements for accessibility **DO NOT APPLY** to:

- A. Seats whose seat cushions are movable so that the seat back serves a function other than seating (S7.4.6.1(b)).
- B. Seats which are removable.
- C. Seats that are movable so that the space formerly occupied by the seat can be used for a secondary function.

If the seats in this vehicle are different than the criteria above, determine the following:

1. Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back?  
☒ Yes: go to 2.  
☐ No: this form is complete.
2. Does one of the following three parts, the seat belt latchplate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)?  
☒ Yes-Pass; ☐ No-Fail
3. Are the remaining two seat belt parts accessible under normal conditions?  
☒ Yes-Pass; ☐ No-Fail

**FMVSS 208 Seat Belt Comfort And Convenience Test Summary, Cont'd.**

**Seat Belt Guides And Hardware (S7.4.6)**

4. The buckle and latchplate do not pass through the guides or conduits provided and fall behind the seat when the following events occur in order:

(A) The belt is completely retracted or, if the belt is nonretractable, the belt is unlatched.

☒ Check

(B) The seat is moved to any position to which it is designed to be adjusted.

☒ Check

(C) The seat back, if foldable, is folded forward as far as possible and then moved backward into position.

☒ Check

☒ Yes-Pass;

☐ No-Fail

5. Is the inboard receptacle end of the seat belt assembly, installed in the outboard designated seating position, accessible with the center arm rest in any position to which it can be adjusted (without moving the armrest)?

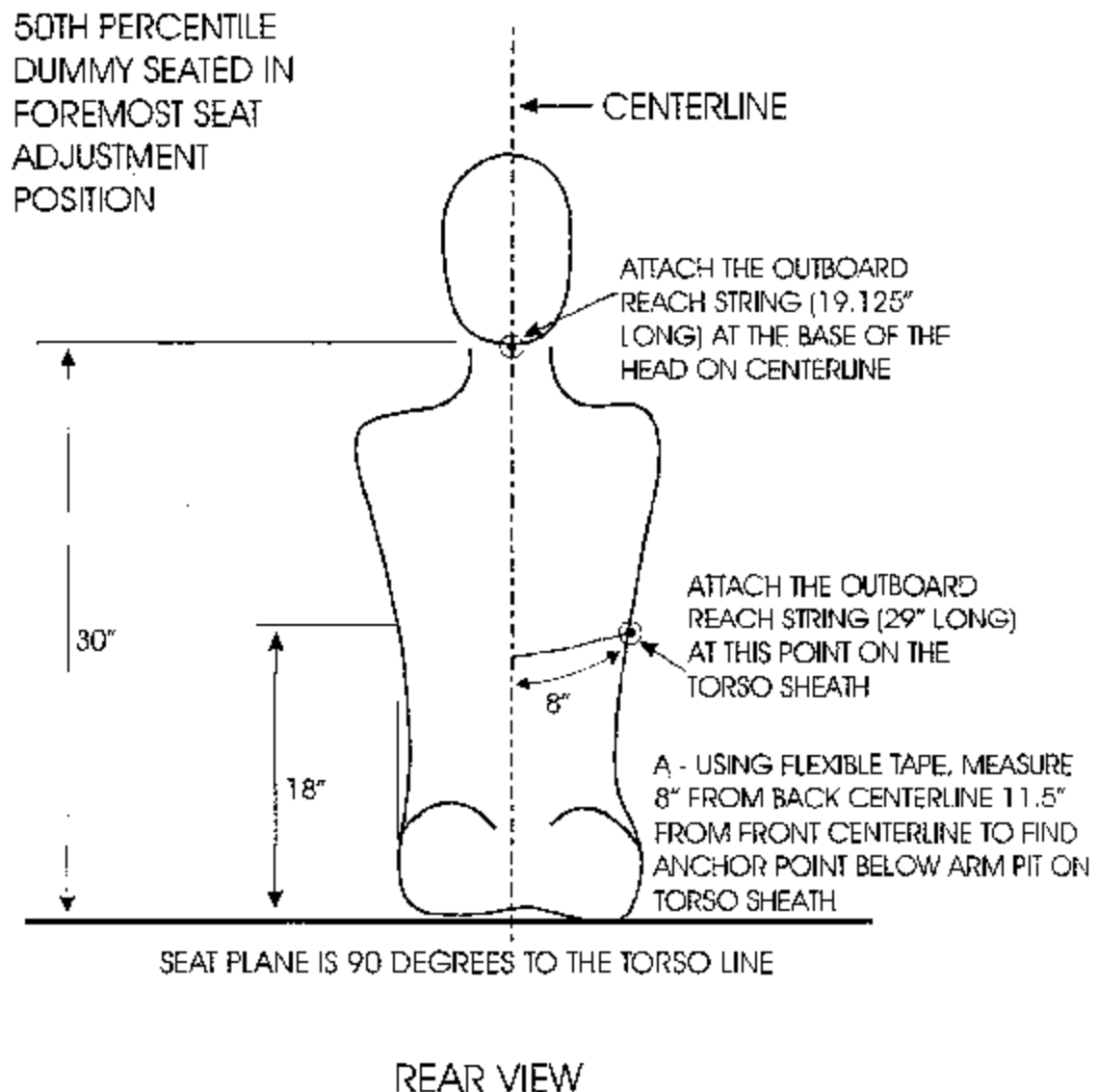
☒ Yes-Pass;

☐ No-Fail

N/A, no armrest

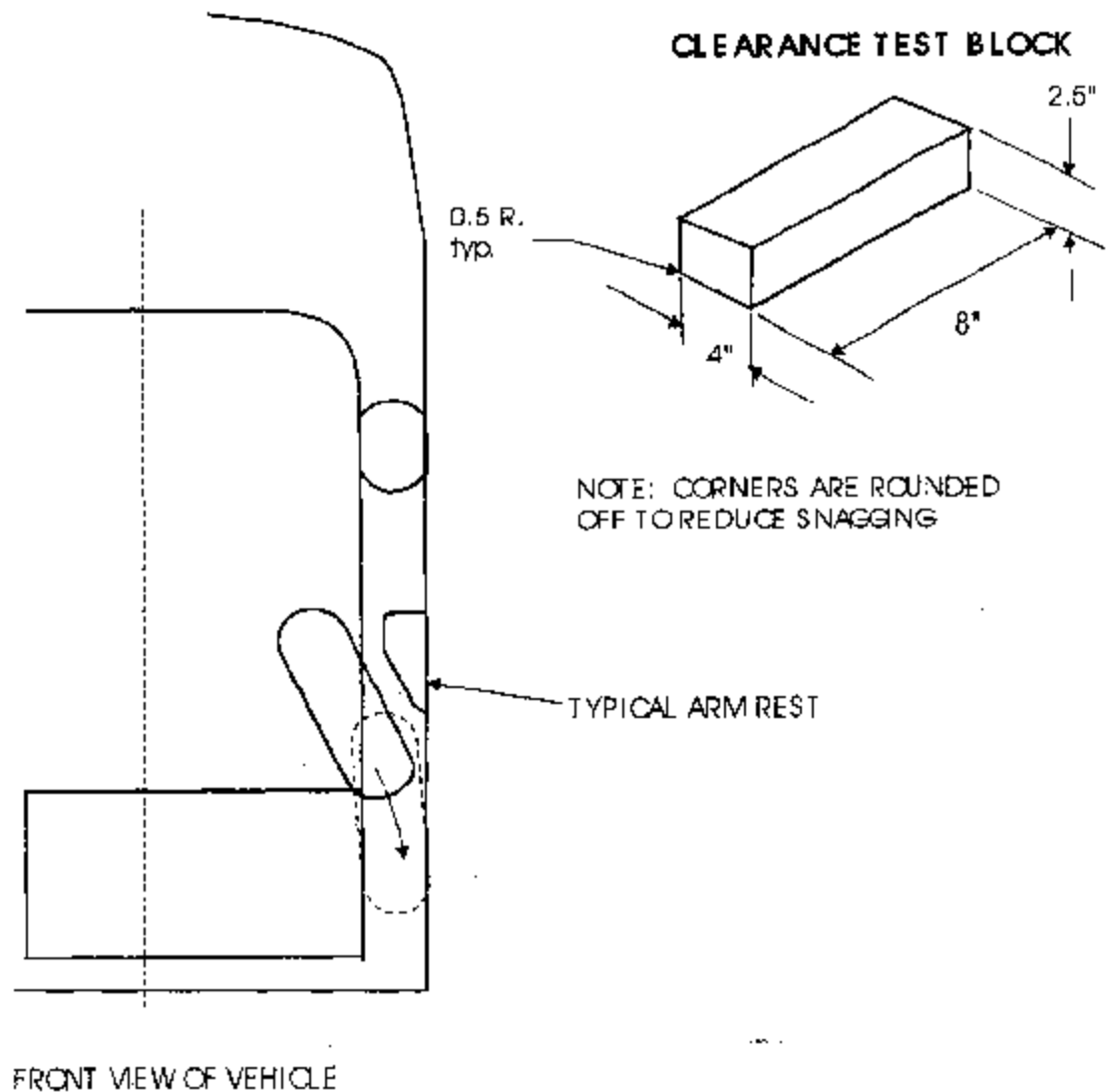
# LOCATION OF ANCHORING POINTS FOR LATCHPLATE REACH LIMITING CHAINS OR STRINGS TO TEST FOR LATCHPLATE ACCESSIBILITY

## PART 572E DUMMY



Laboratory Test Procedure Figure 1C

## USE OF CLEARANCE TEST BLOCK TO DETERMINE HAND/ARM ACCESS



Laboratory Test Procedure Figure 2C



Appendix A

Photographs

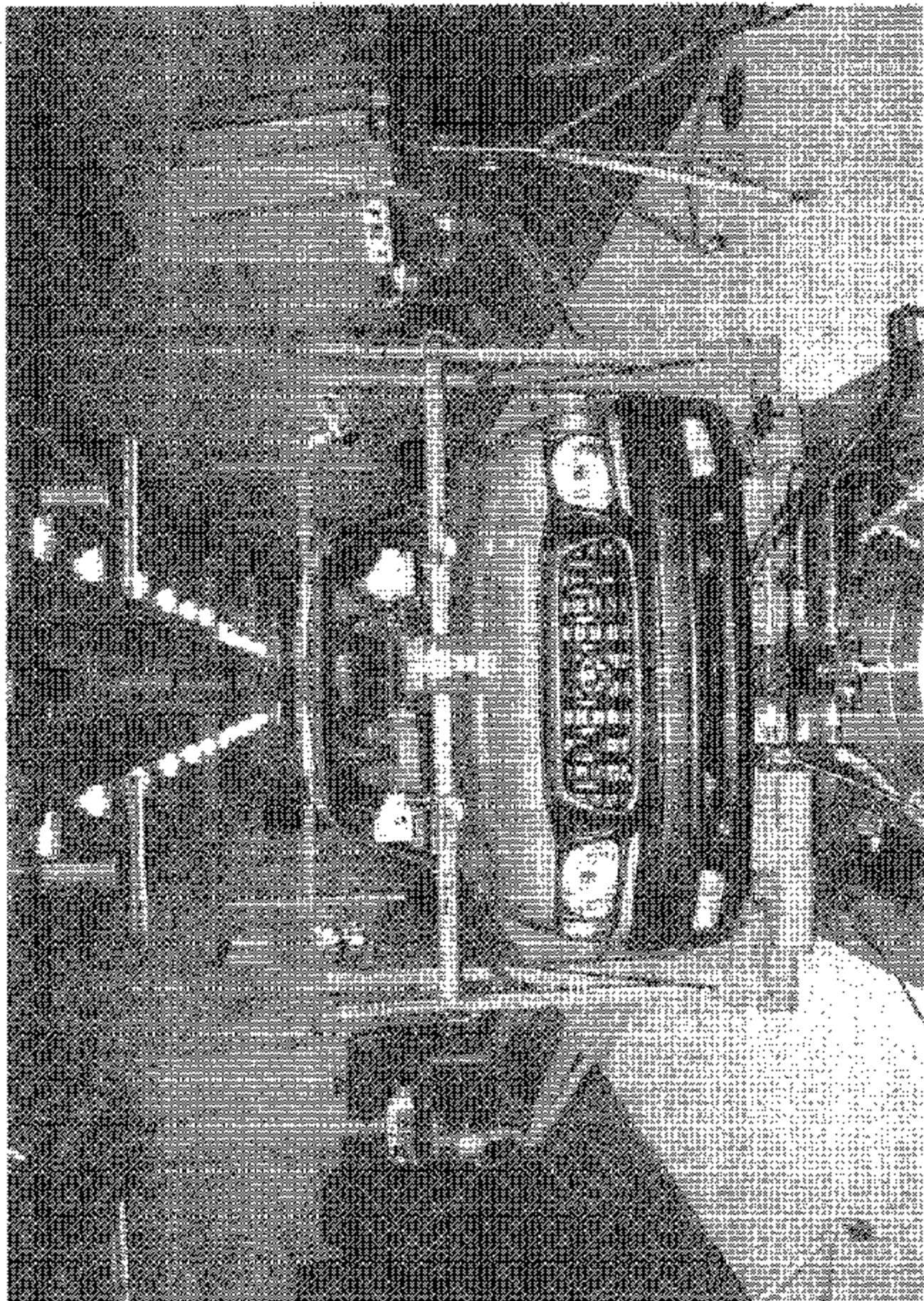


Figure A-1. Pre-Test Front View of Test Vehicle Mounted to Sled

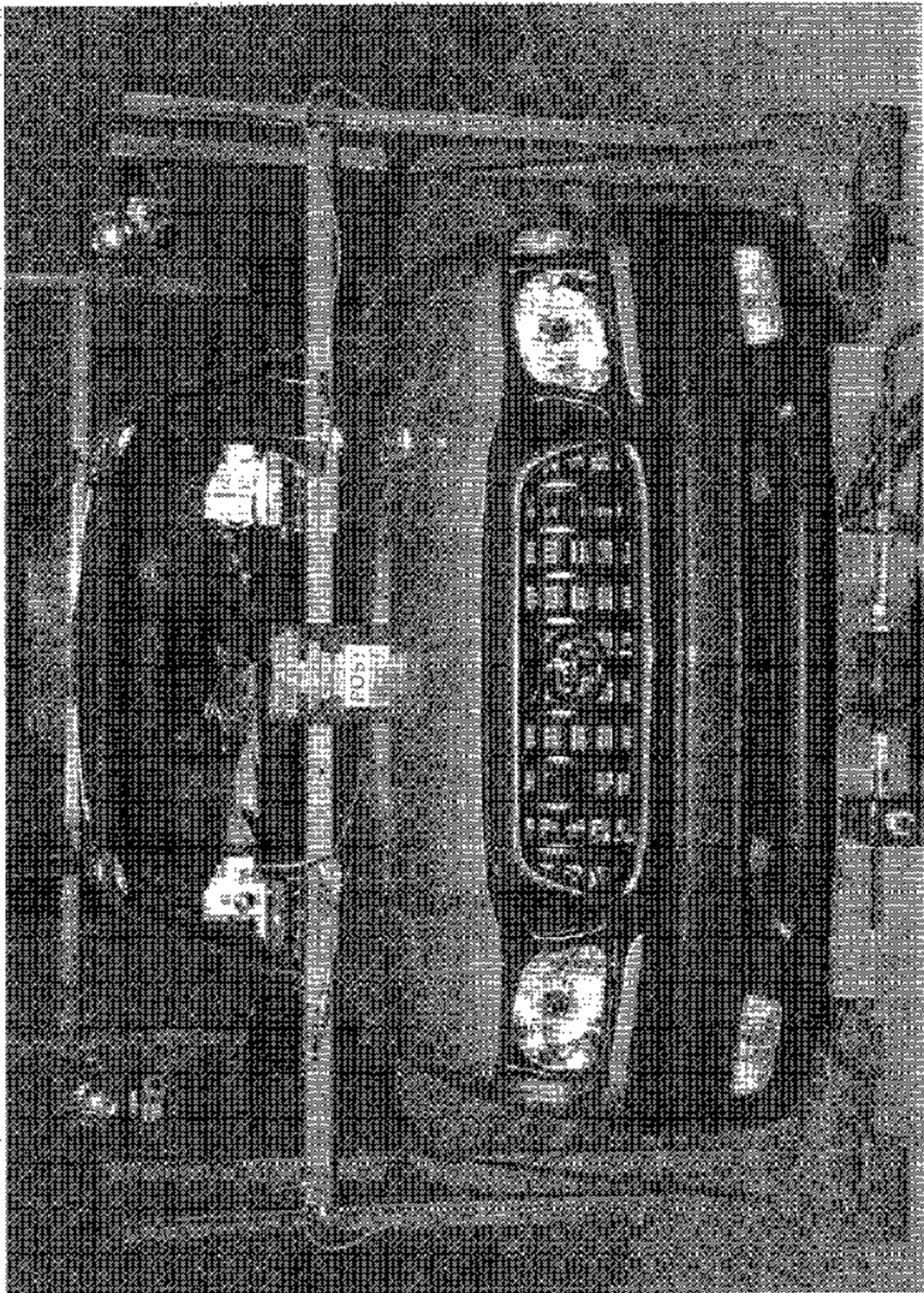


Figure A-2. Post-Test Front View of Test Vehicle Mounted to Sled

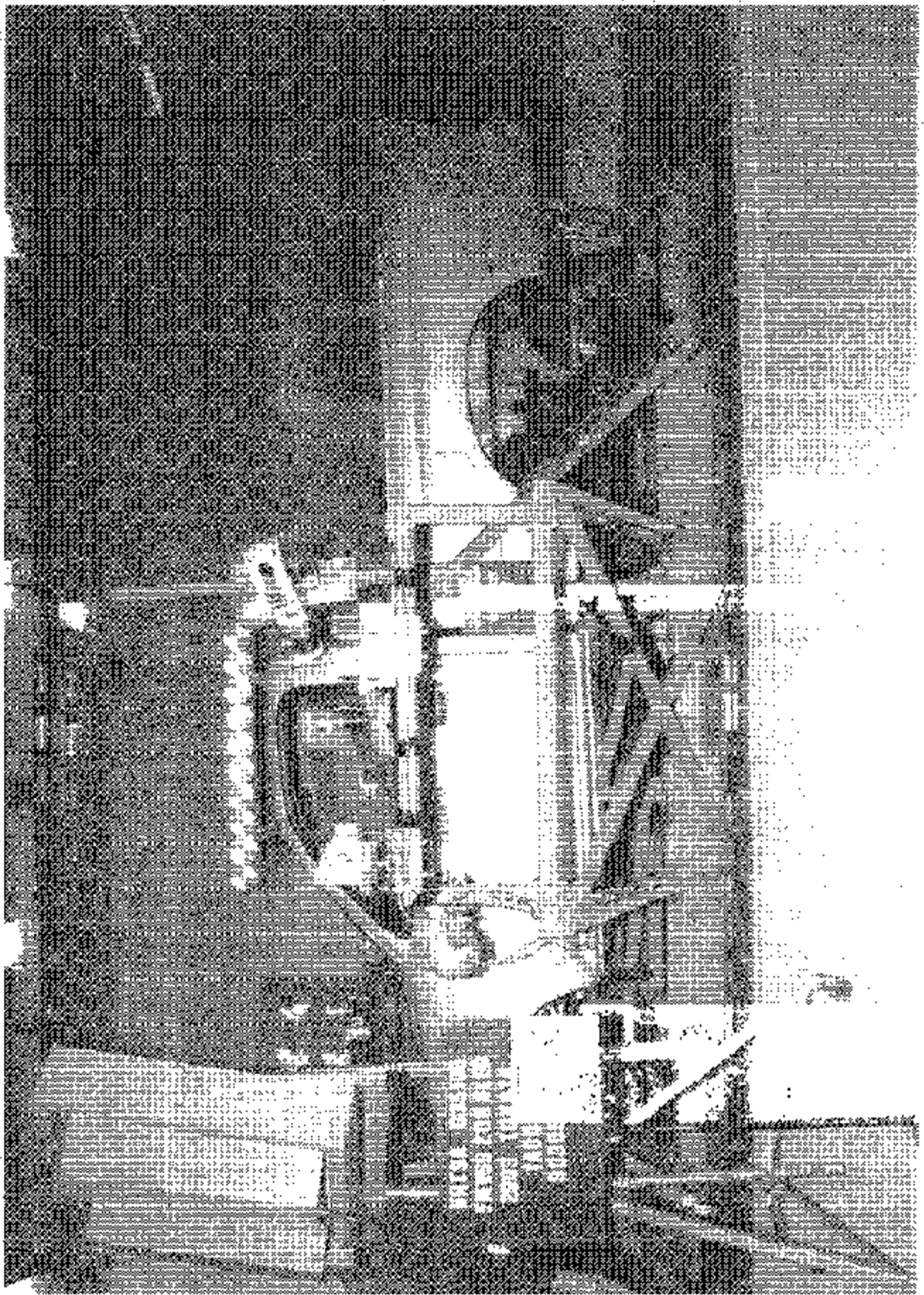


Figure A-3. Pre-Test Left Side View of Test Vehicle Mounted to Sled

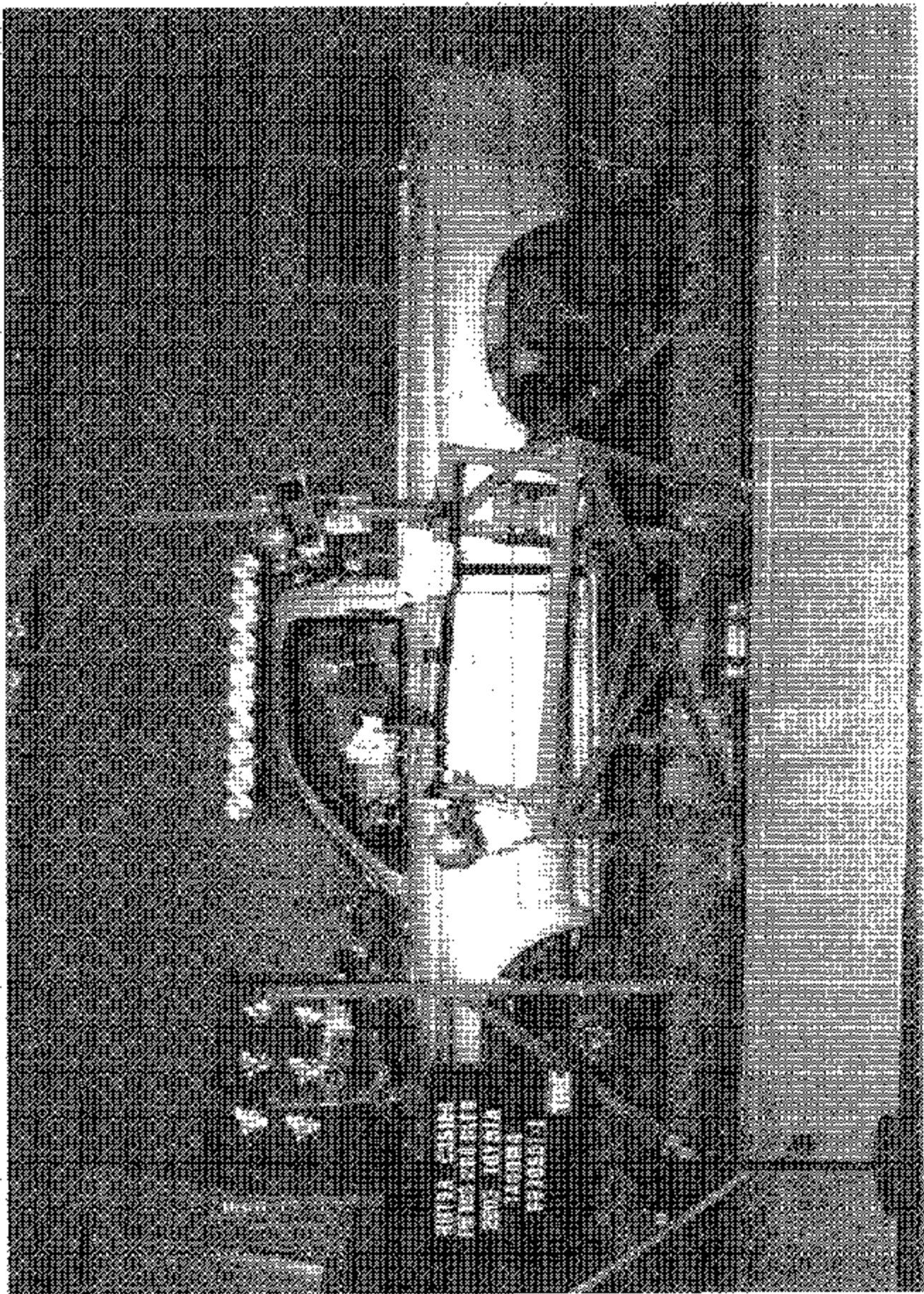


Figure A-4. Post-Test Left Side View of Test Vehicle Mounted to Sled

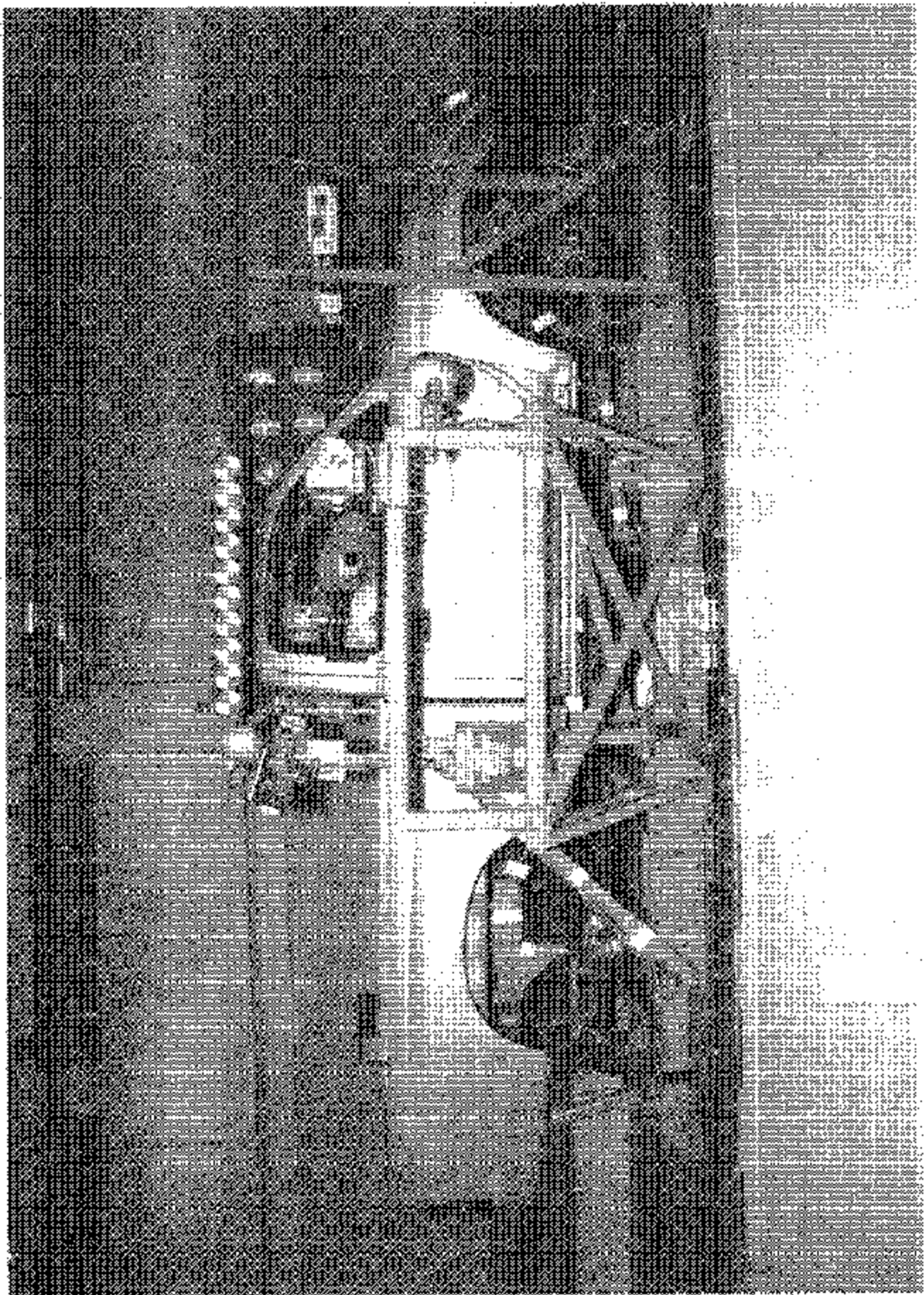


Figure A-5. Pre-Test Right Side View of Test Vehicle Mounted to Sled

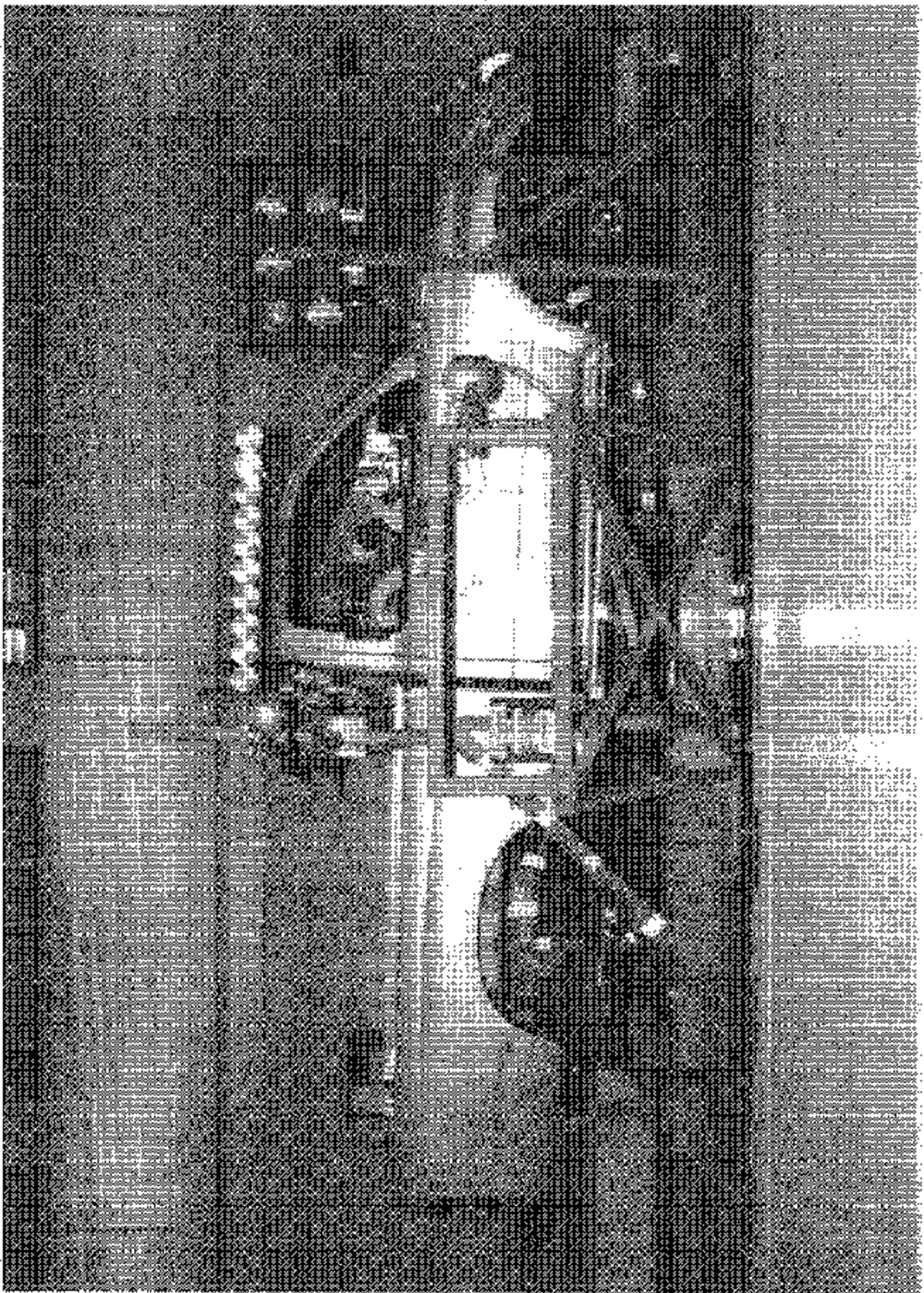


Figure A-6. Post-Test Right Side View of Test Vehicle Mounted to Sled

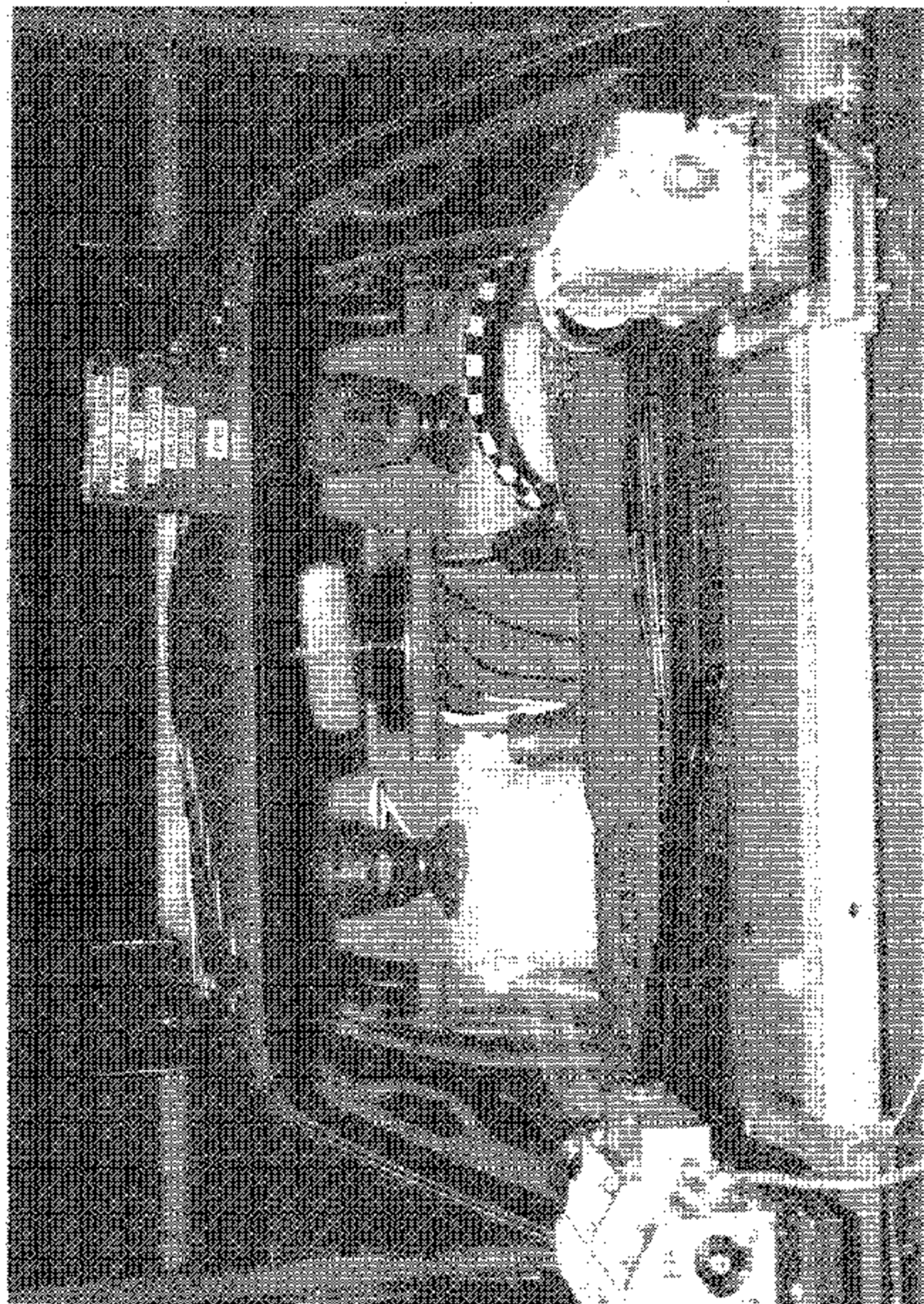


Figure A-7. Pre-Test Windshield View



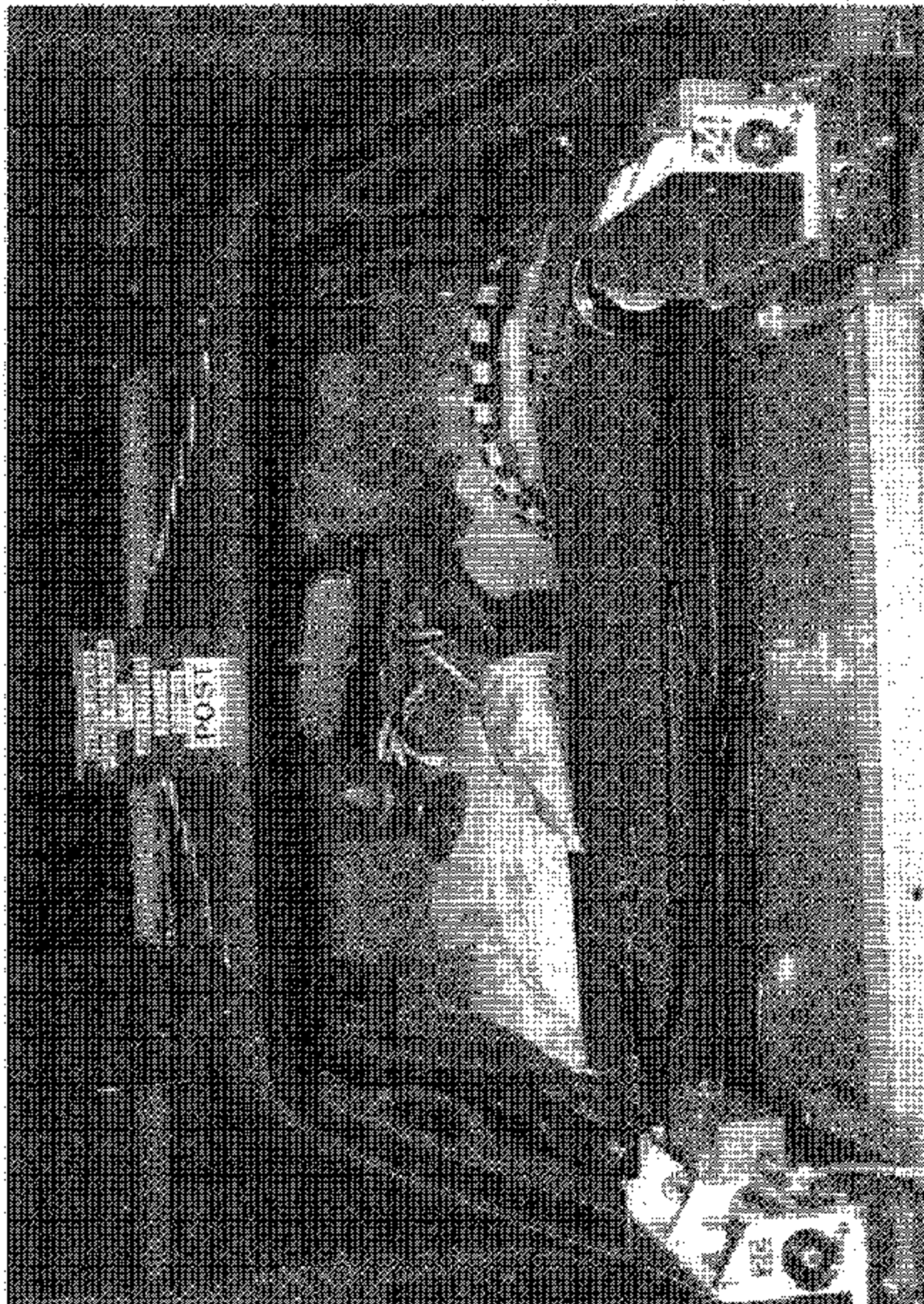


Figure A-8. Post-Test Windshield View

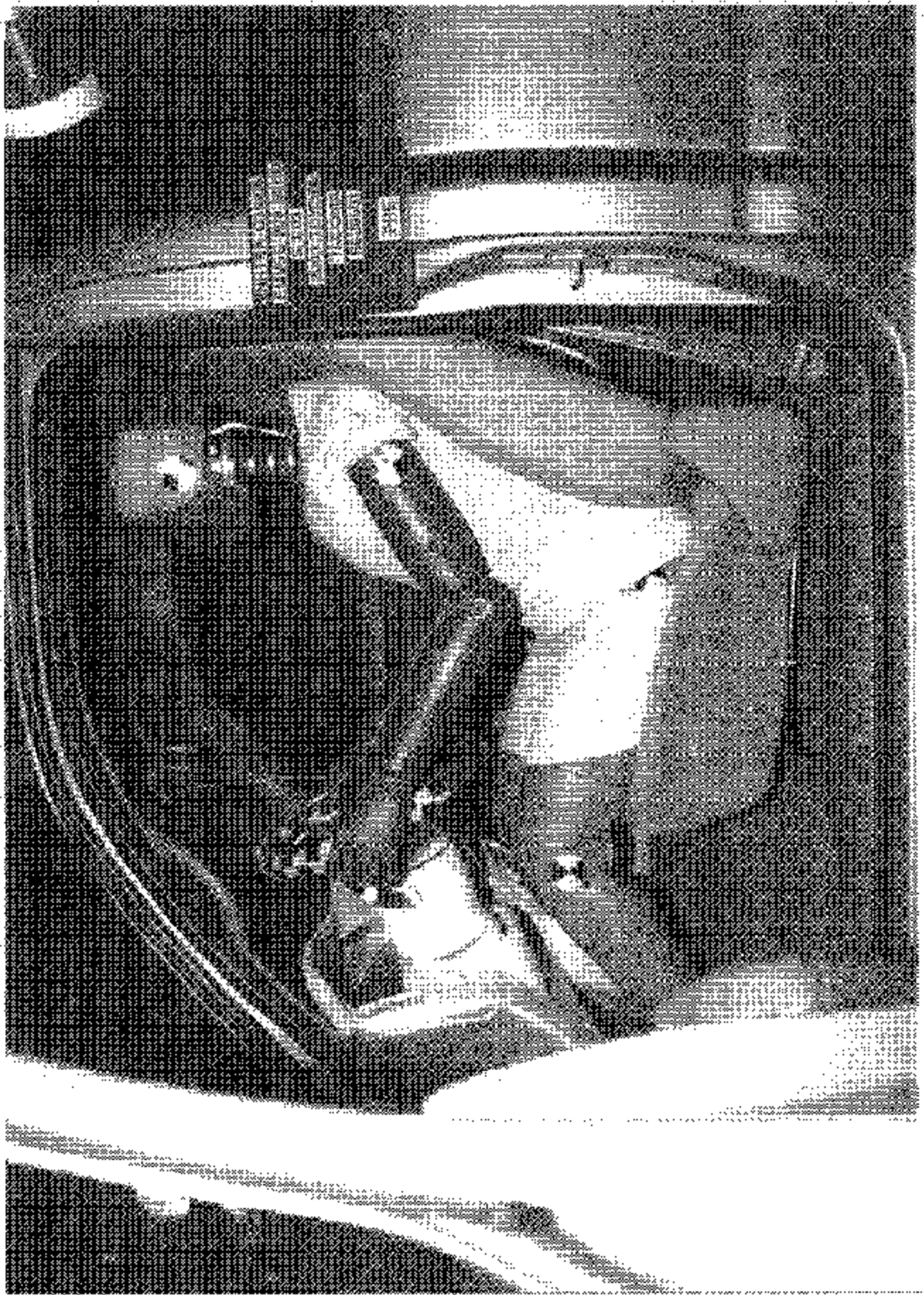


Figure A-9. Pre-Test Driver Dummy Position View with Door Open - View 1

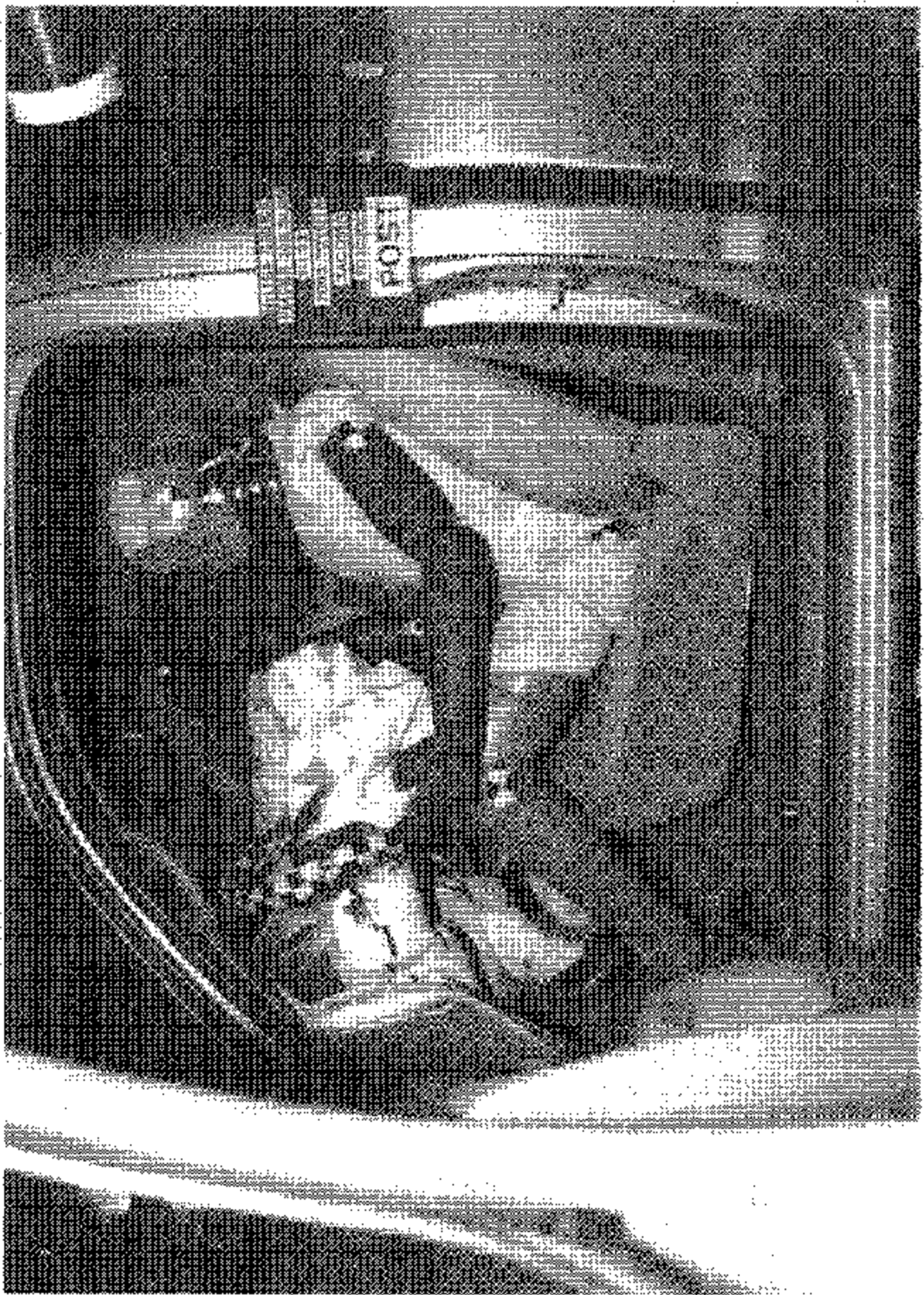


Figure A-10. Post-Test Driver Dummy Position View with Door Open - View 1

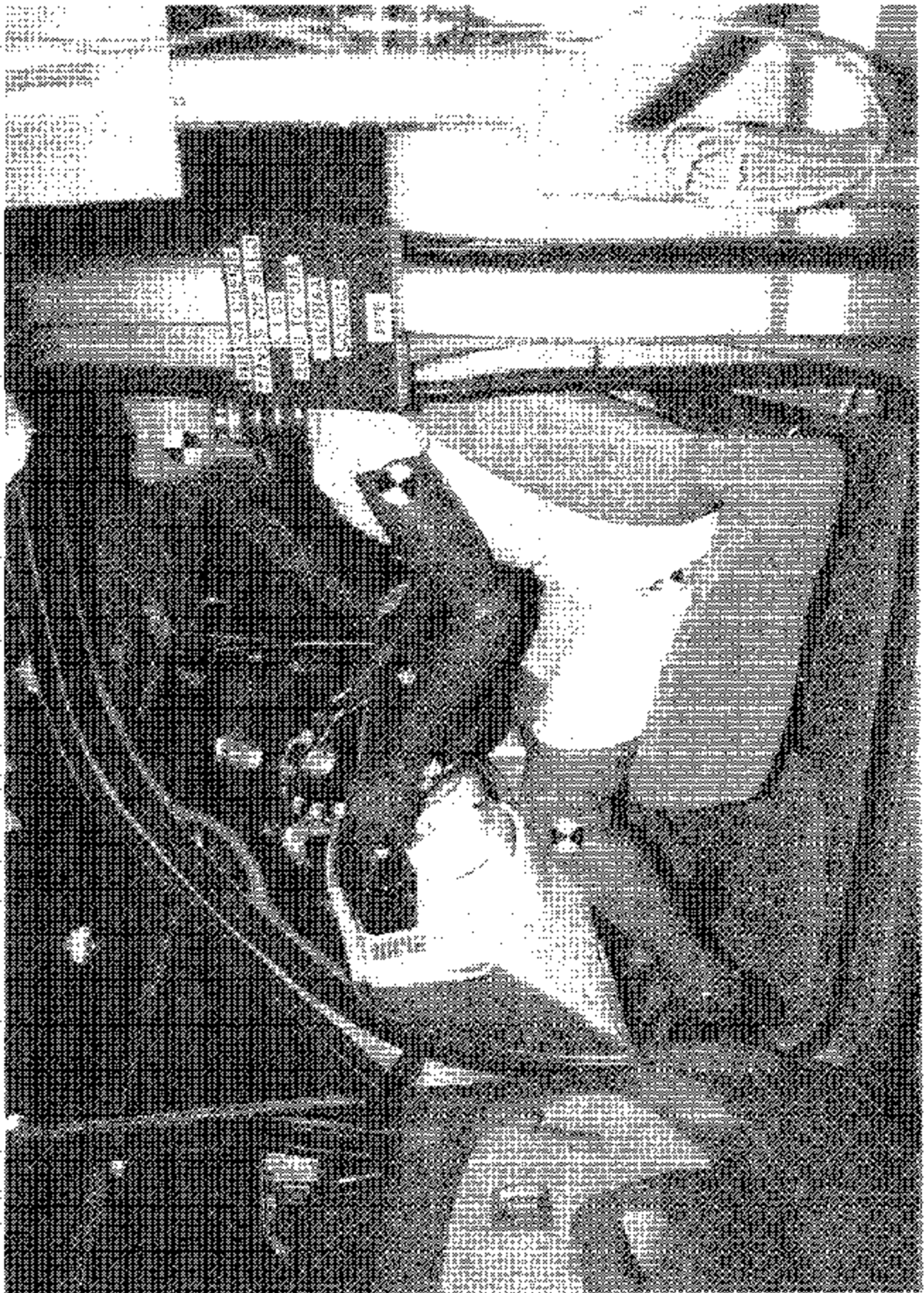


Figure A-11. Pre-Test Driver Dummy Position View with Door Open - View 2

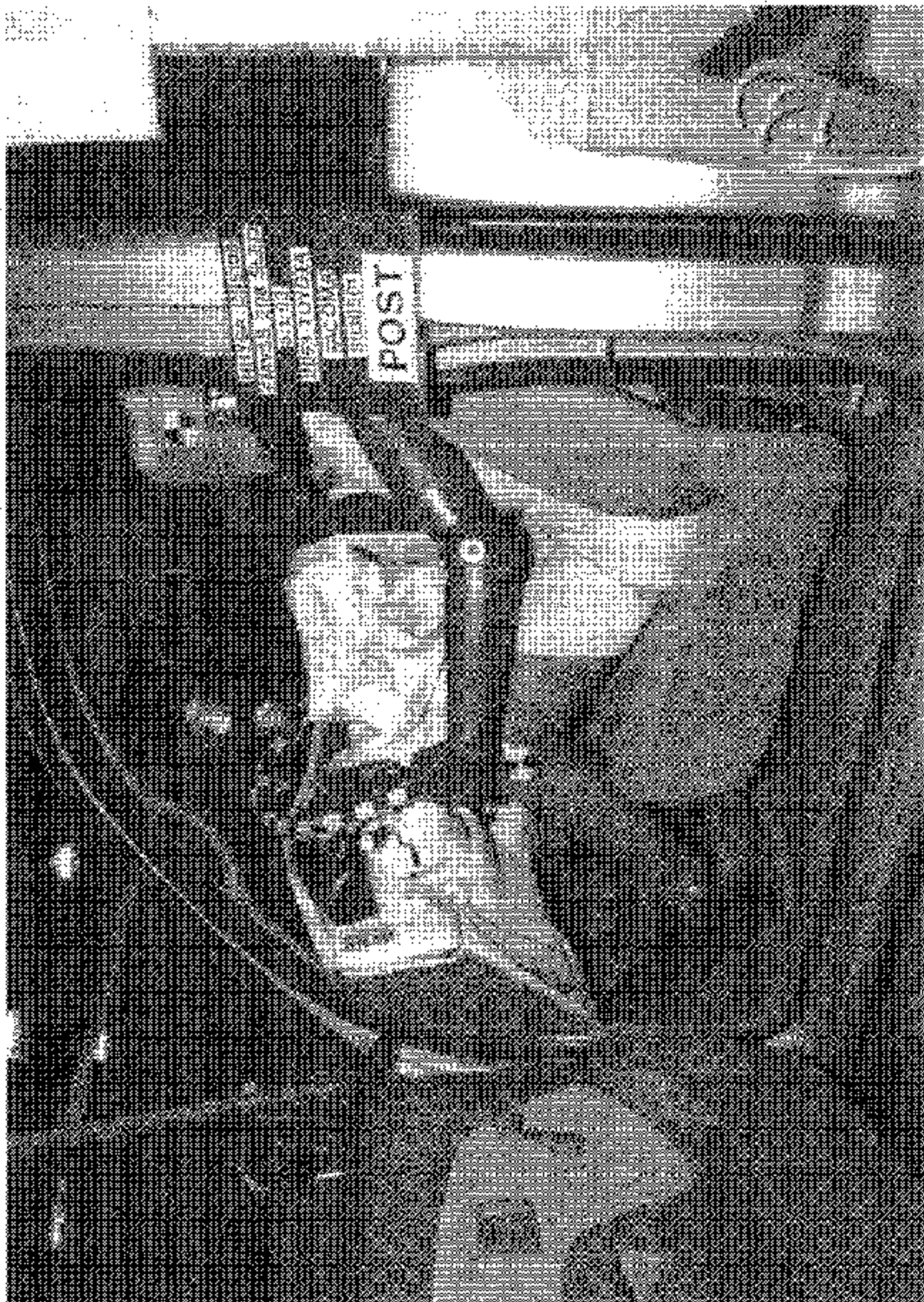


Figure A-12. Post-Test Driver Dummy Position View with Door Open - View 2

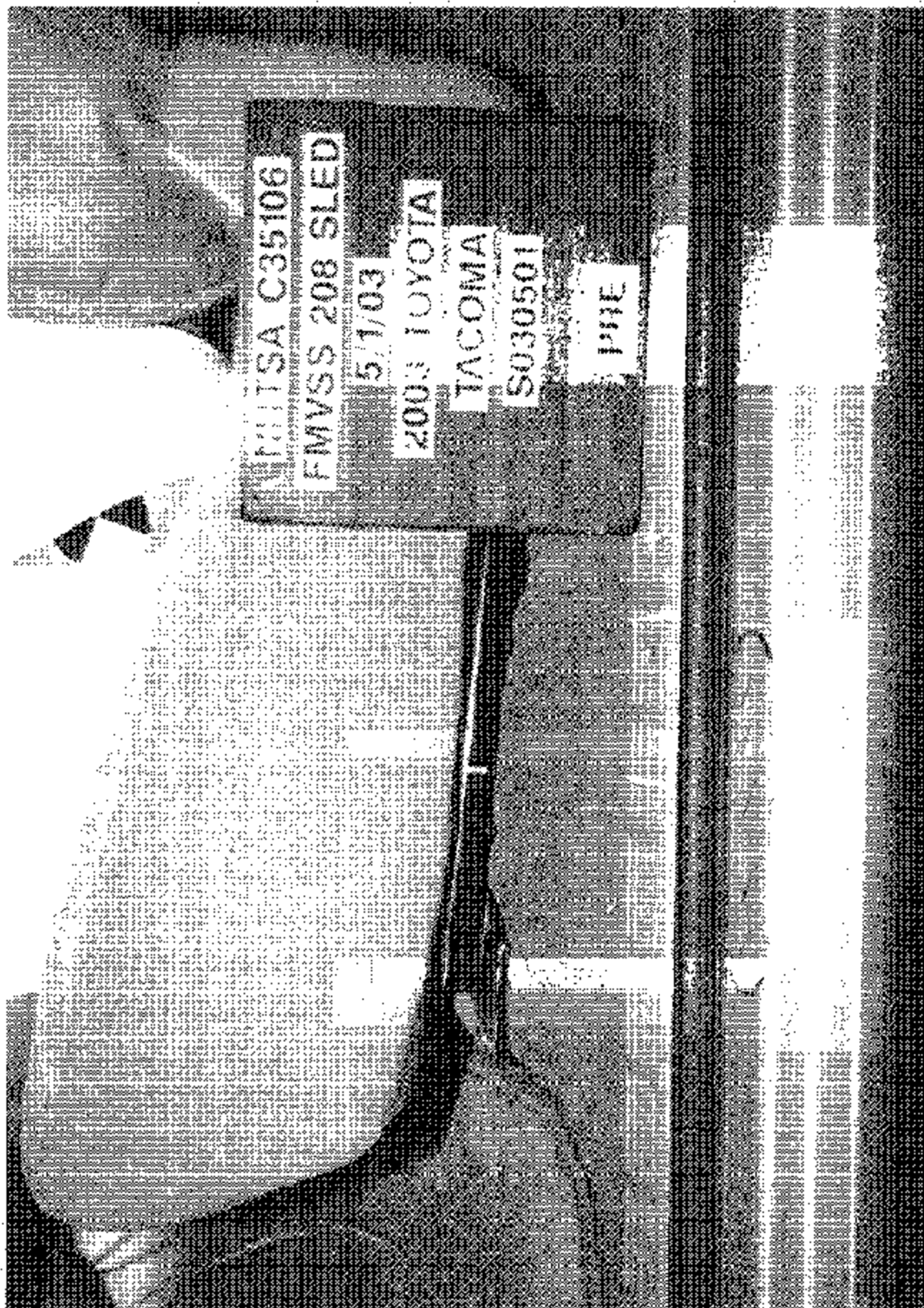


Figure A-13. Pre-Test Driver Seat Track Position View



Figure A-14. Post-Test Driver Seat Track Position View

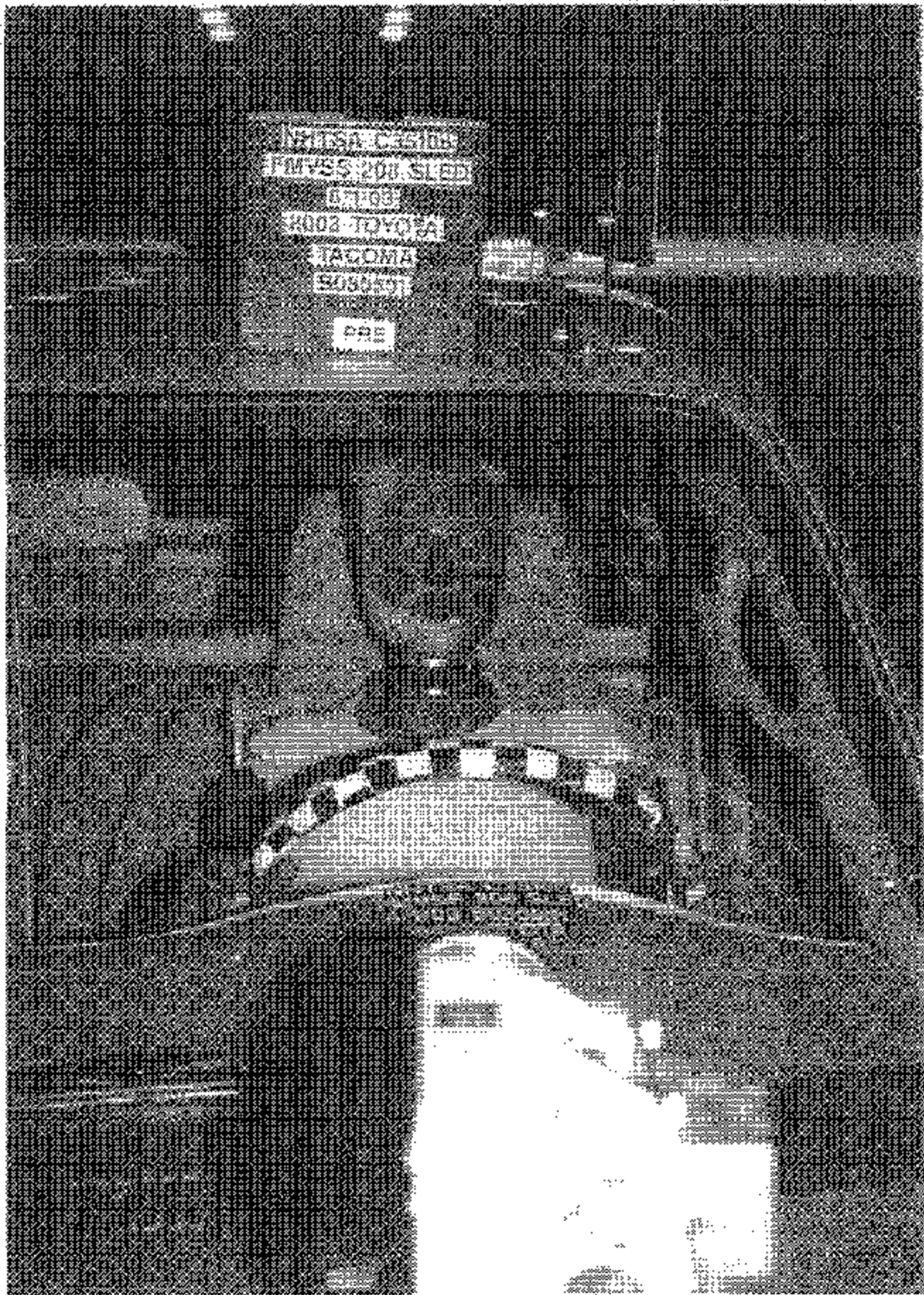


Figure A-15. Pre-Test Driver Dummy Position Front View



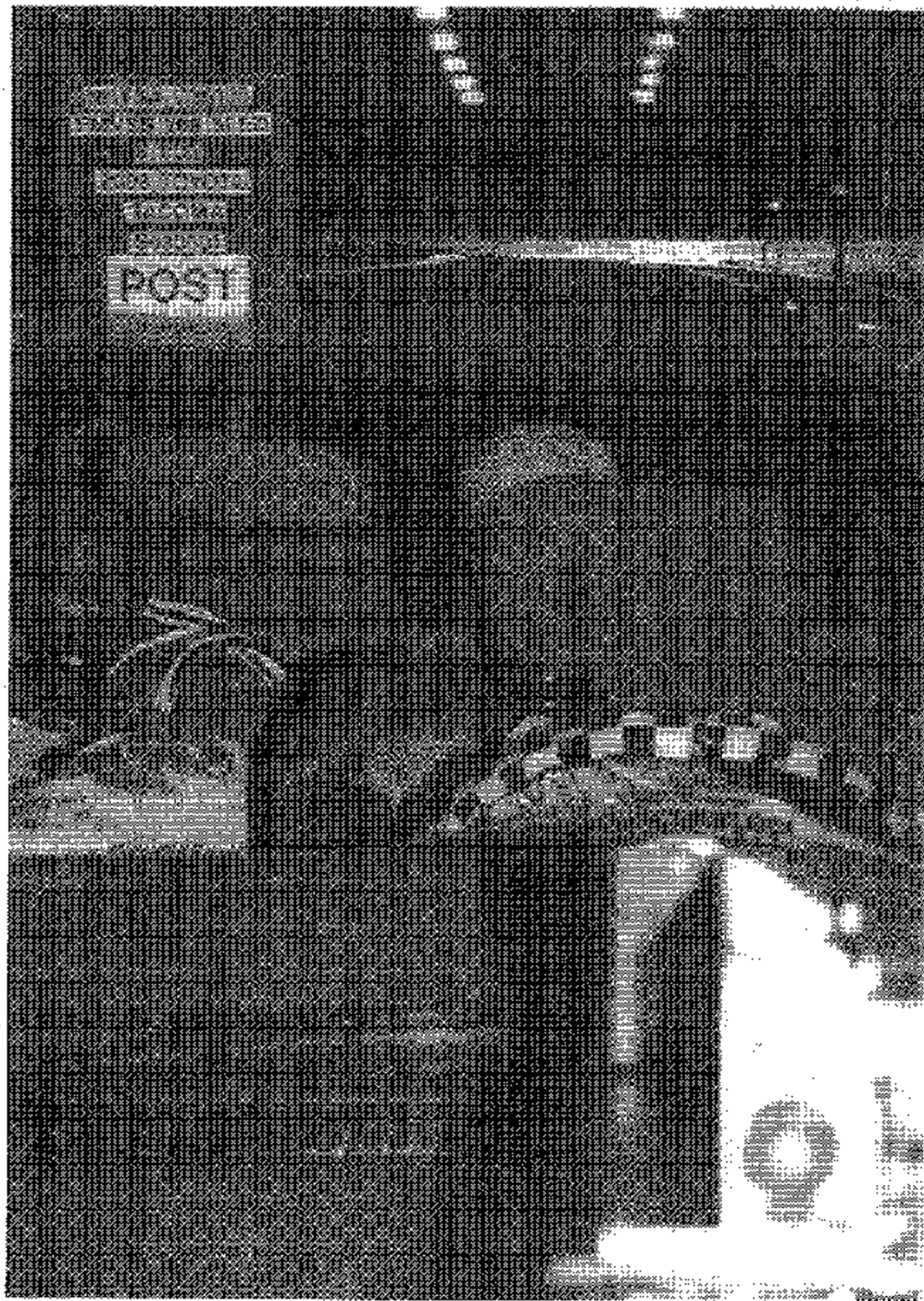


Figure A-16. Post-Test Driver Dummy Position Front View

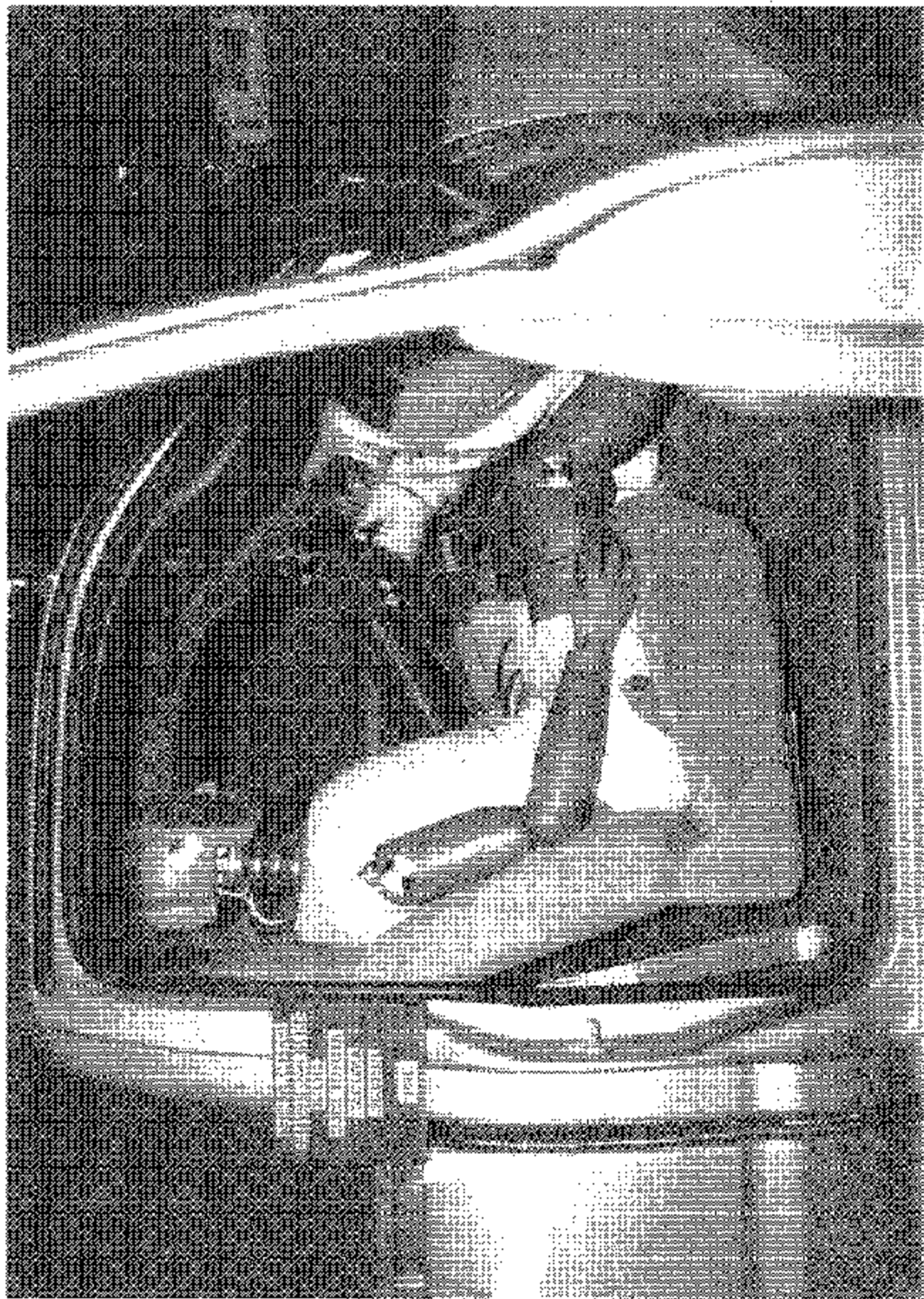


Figure A-17. Pre-Test Passenger Dummy Position View with Door Open - View 1

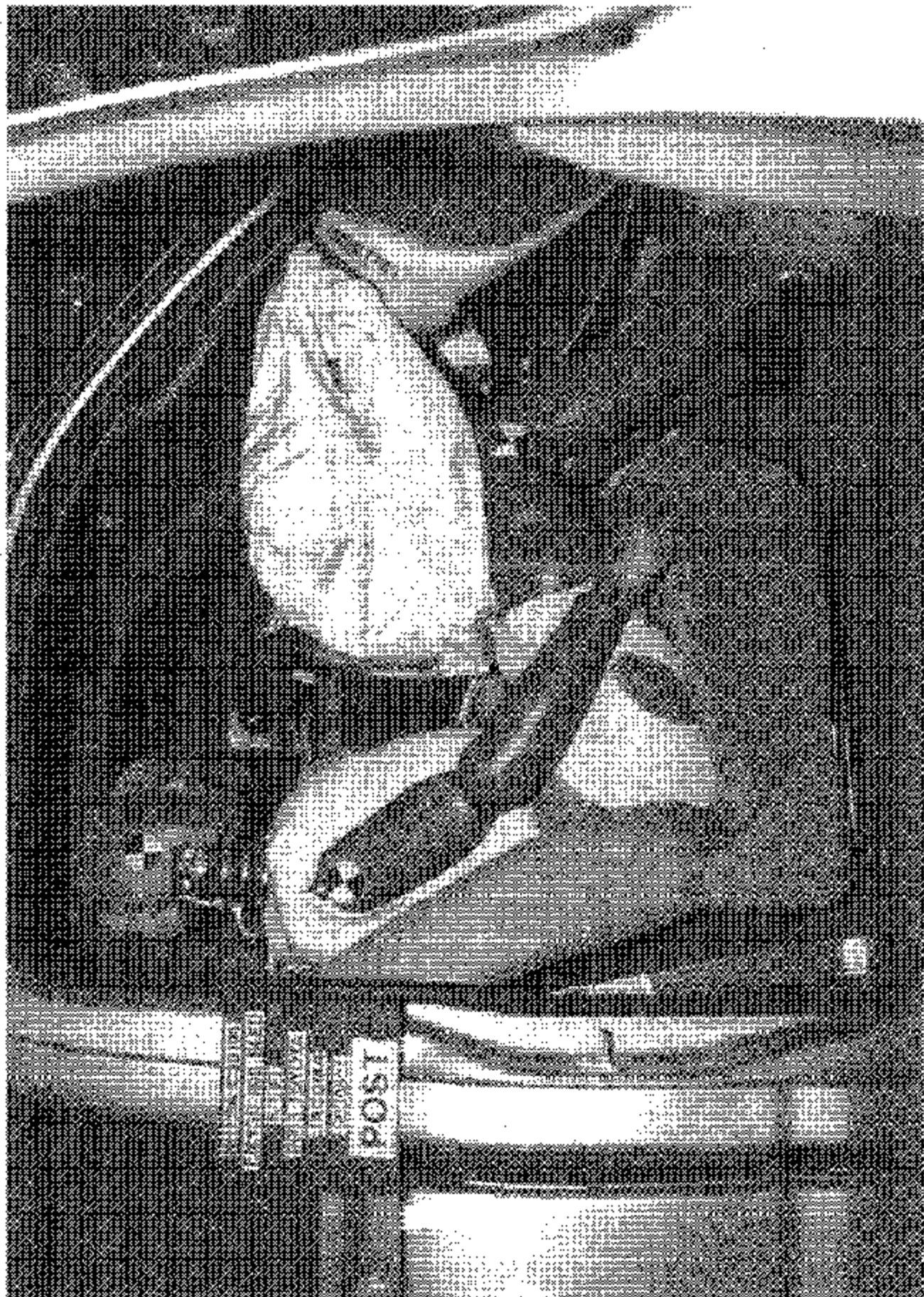


Figure A-18. Post-Test Passenger Dummy Position View with Door Open - View 1

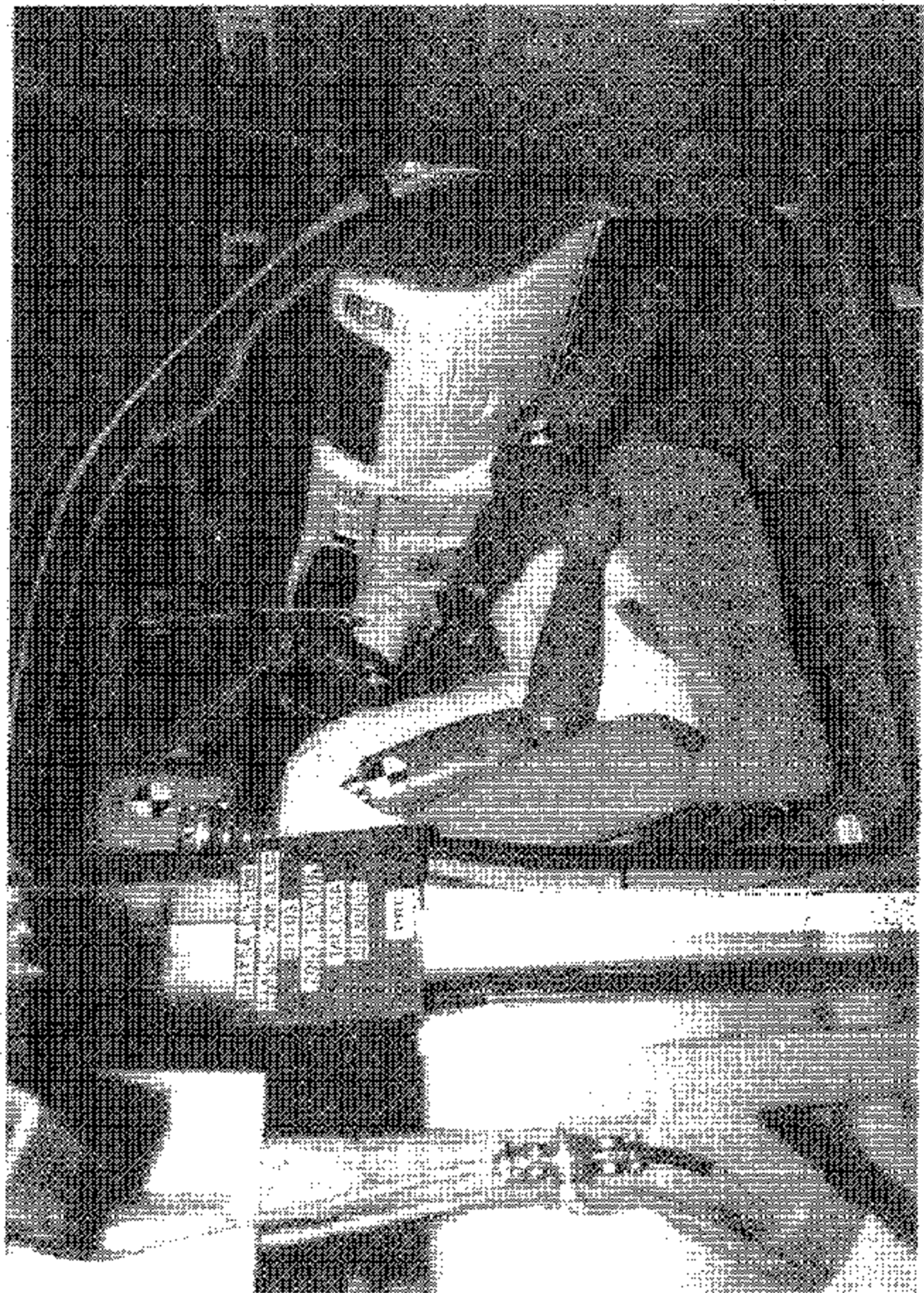


Figure A-19. Pre-Test Passenger Dummy Position View with Door Open - View 2

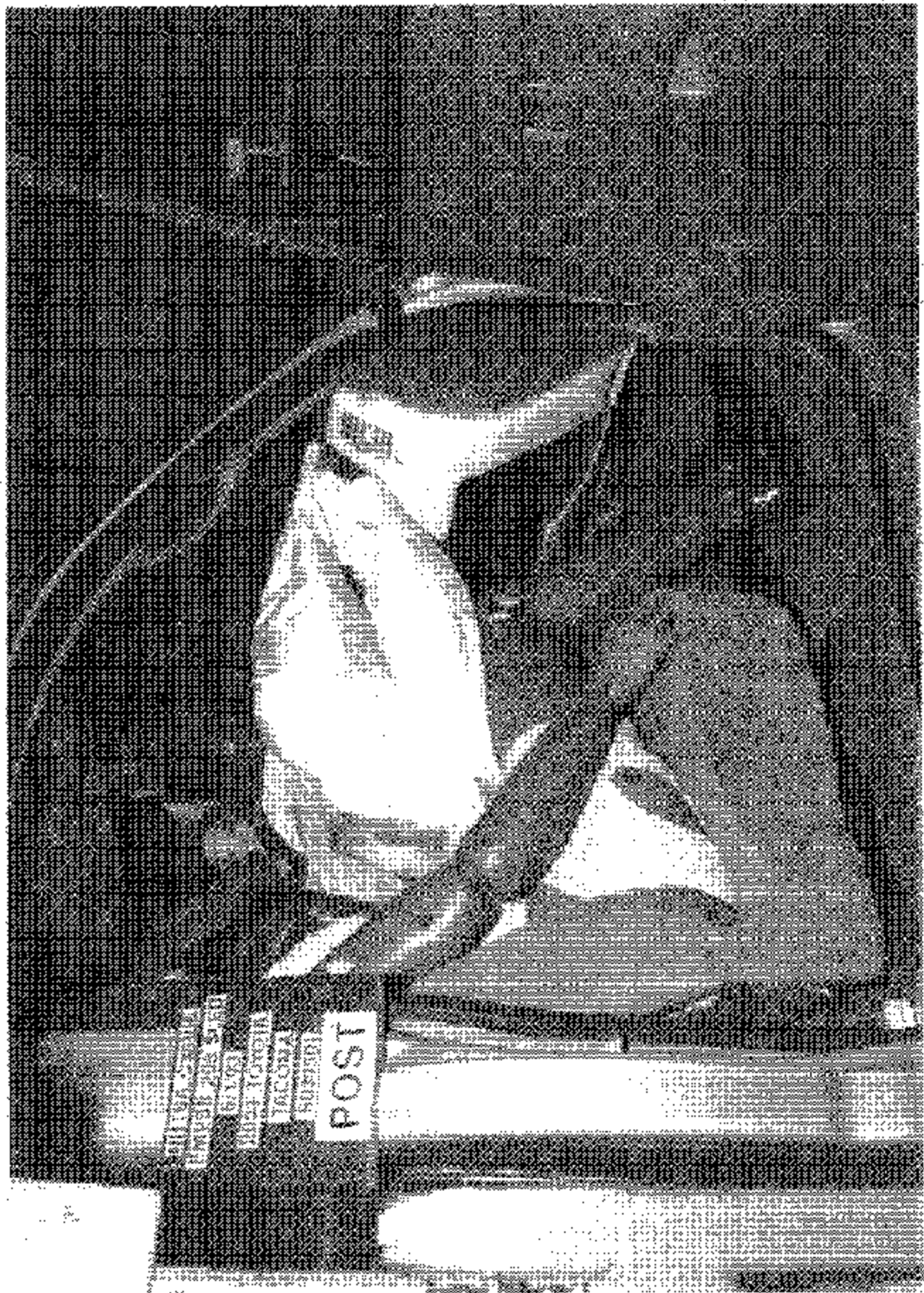


Figure A-20. Post-Test Passenger Dummy Position View with Door Open - View 2

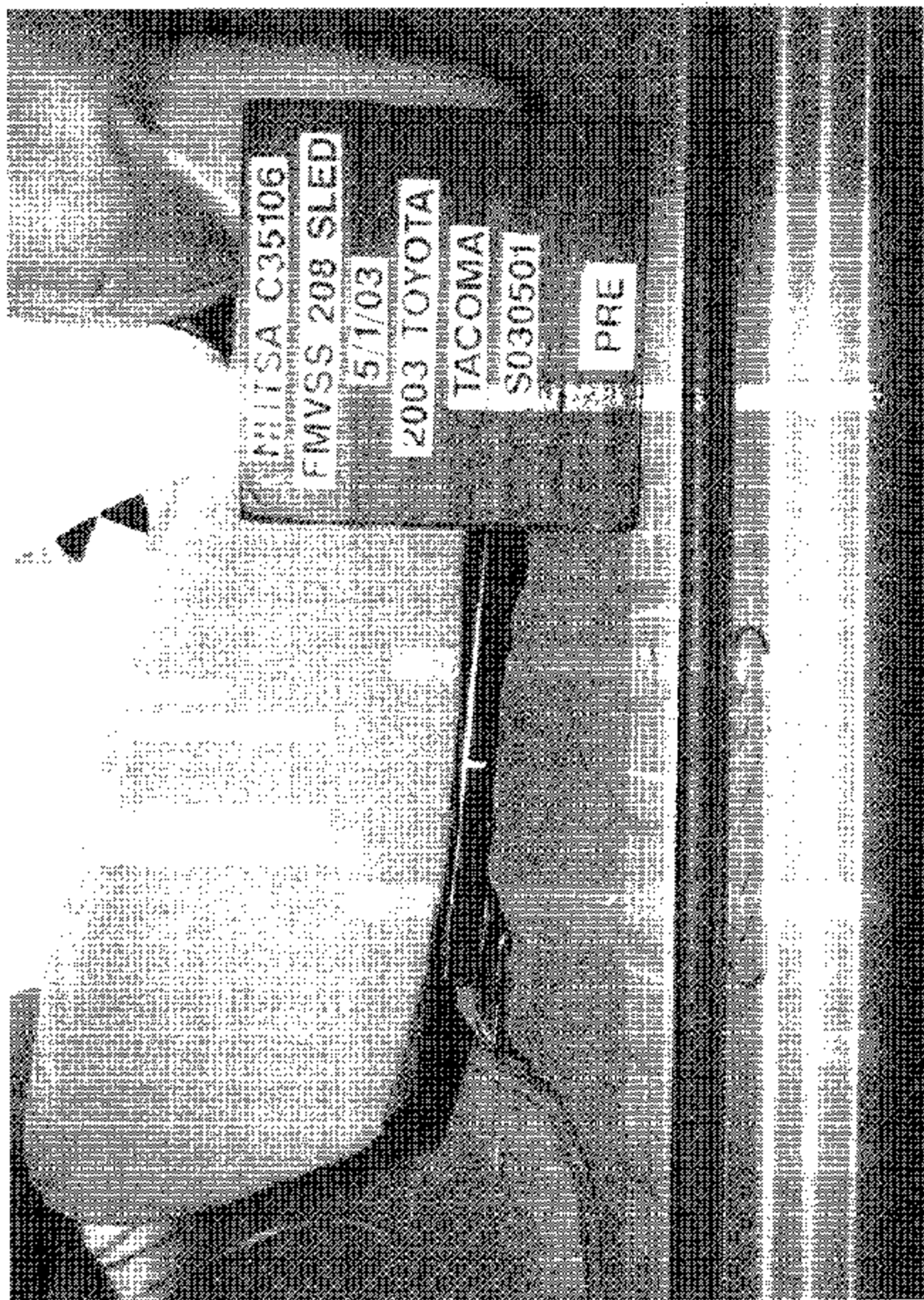


Figure A-21. Pre-Test Passenger Seat Track Position View

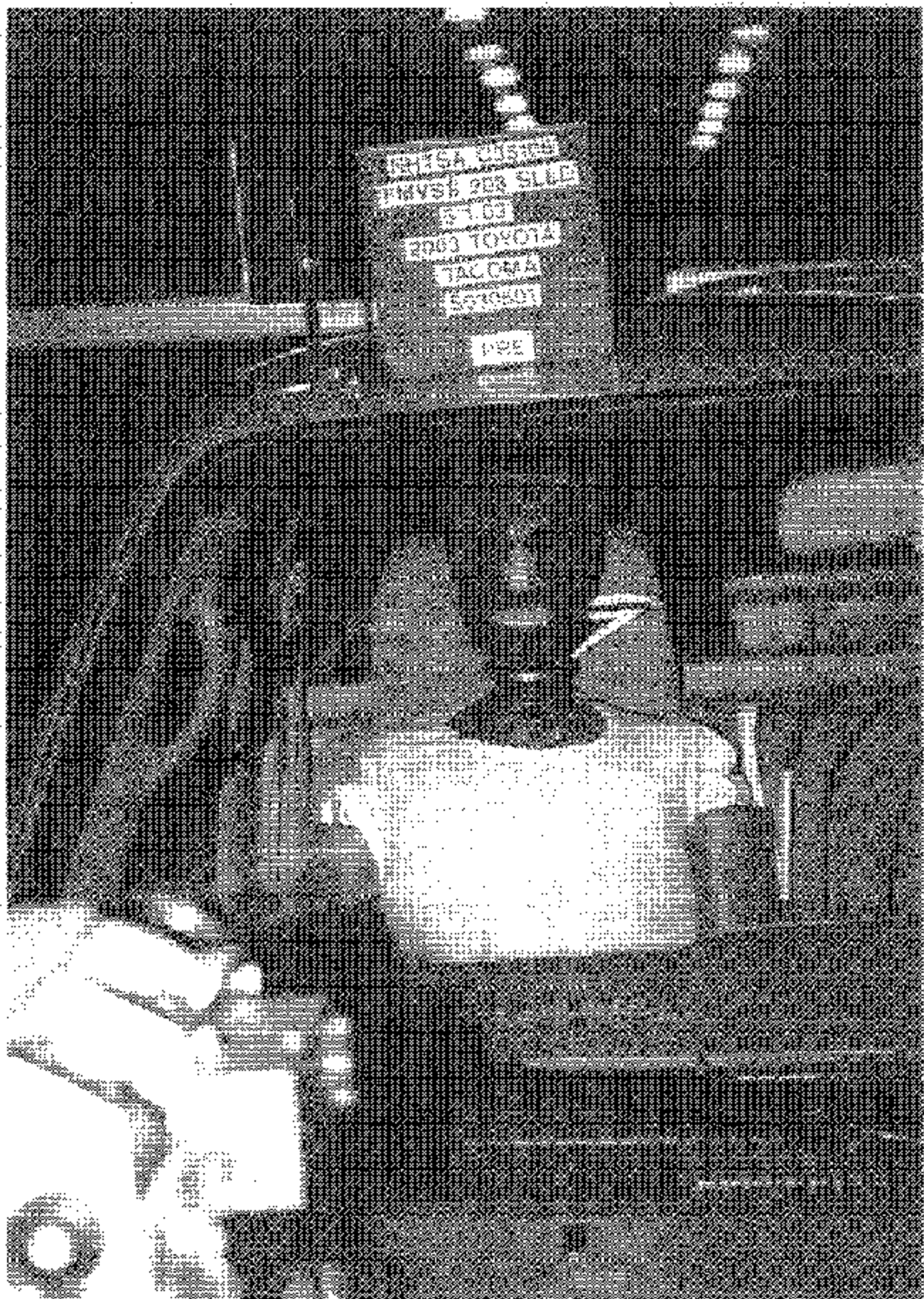


Figure A-22. Pre-Test Passenger Dummy Position Front View

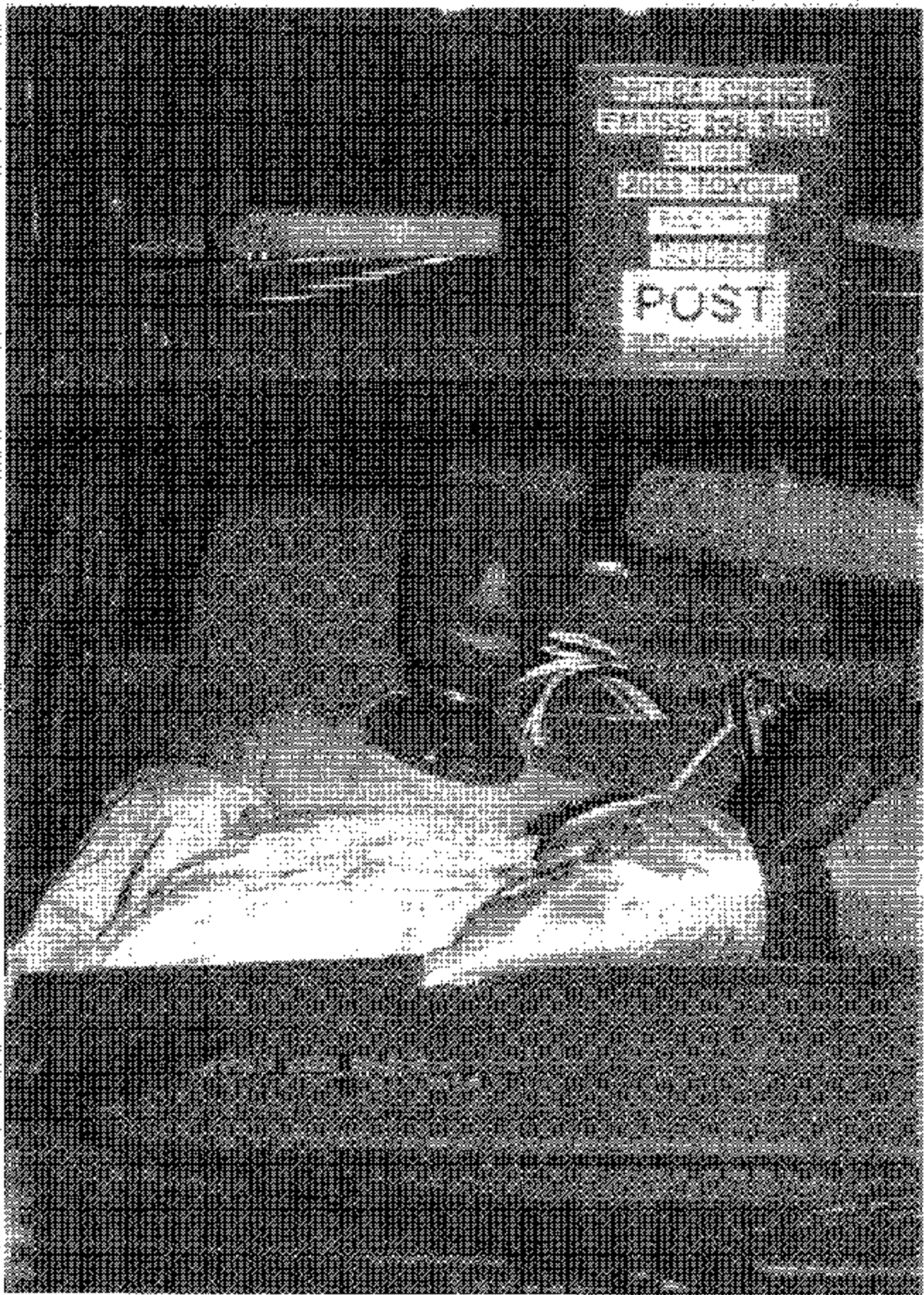


Figure A-23. Post-Test Passenger Dummy Position Front View





Figure A-24. Post-Test Driver Airbag View

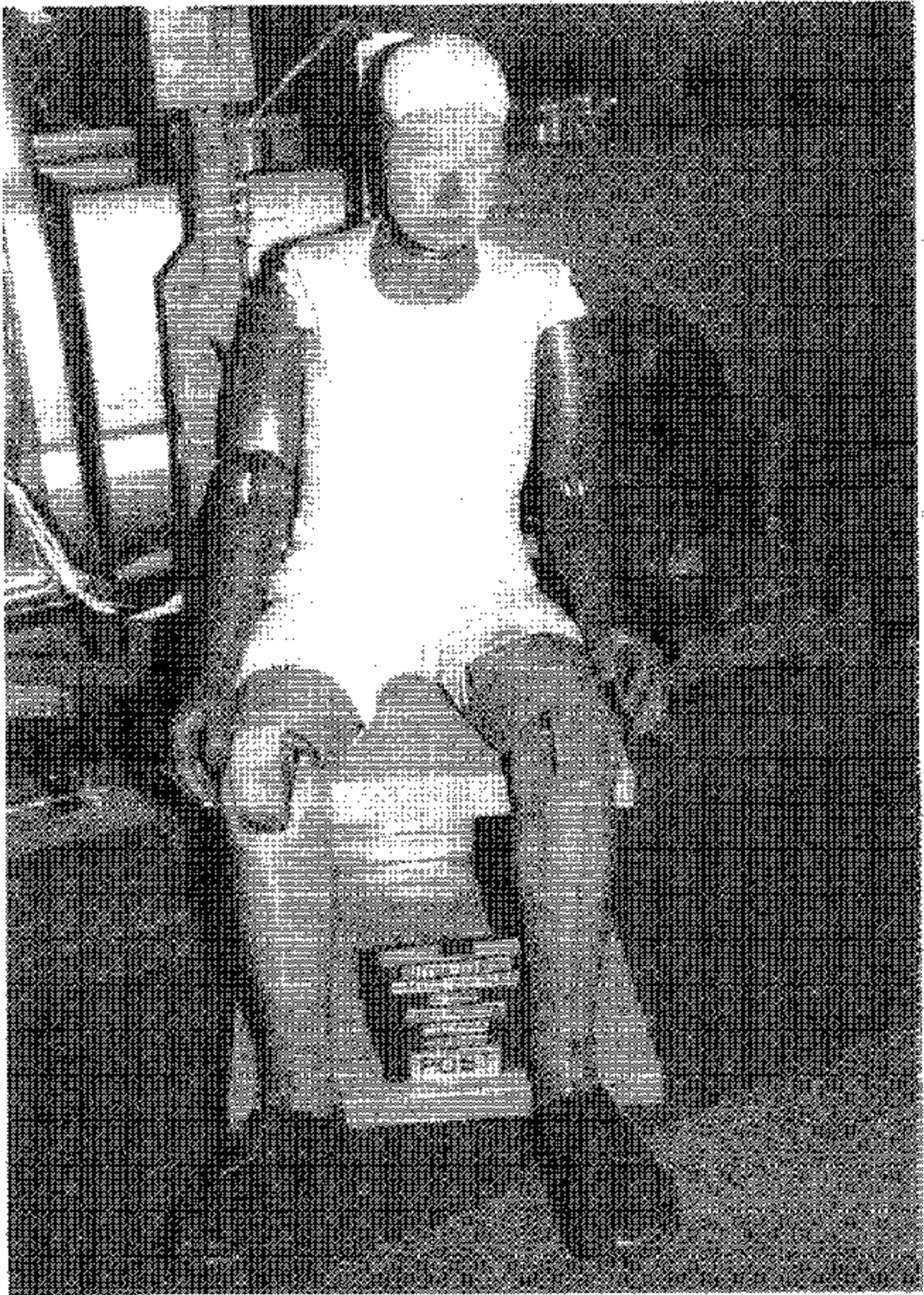


Figure A-25. Post-Test Driver Dummy Removed from Vehicle Overall View

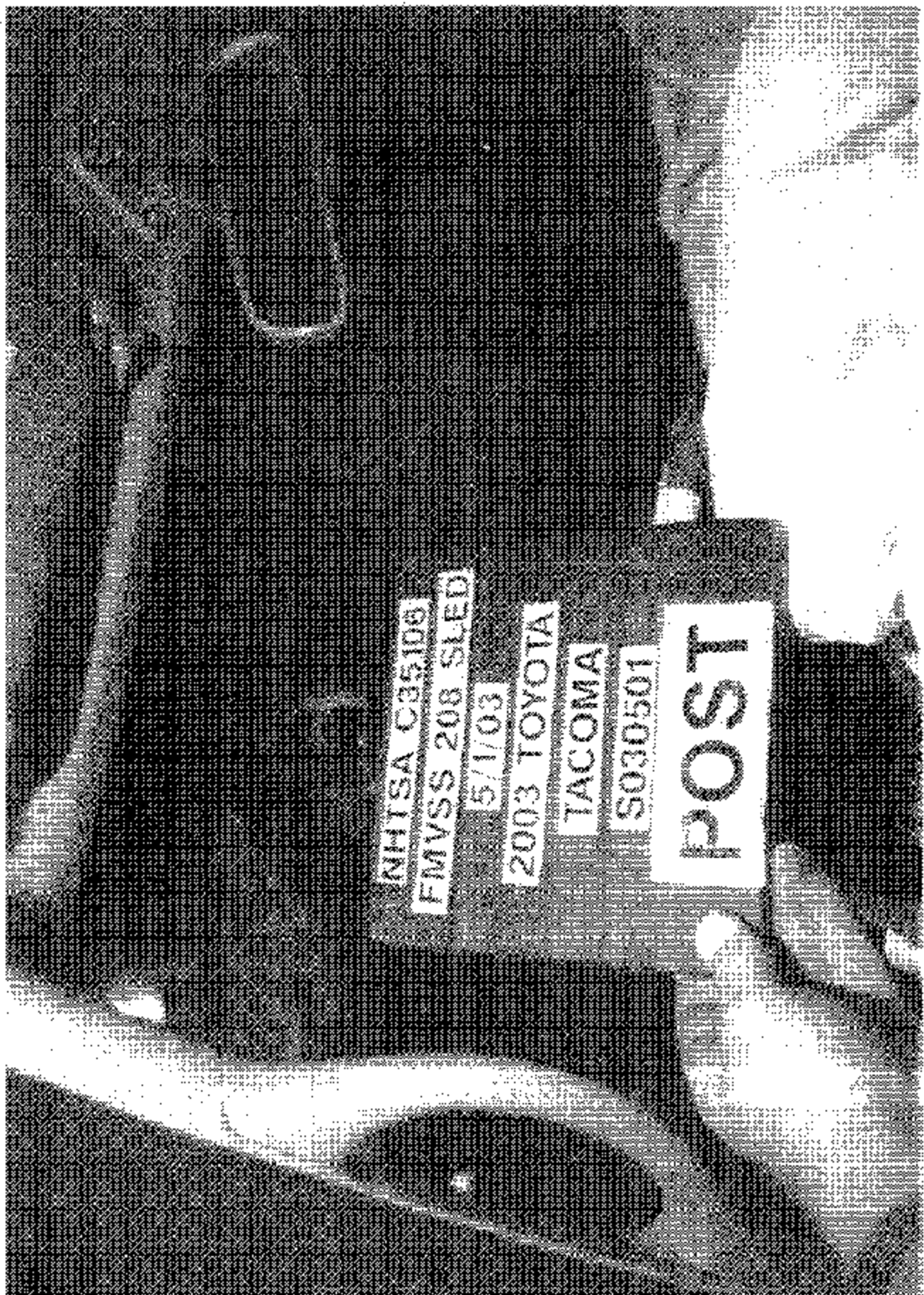


Figure A-26. Post-Test Driver Head Contact - View 1

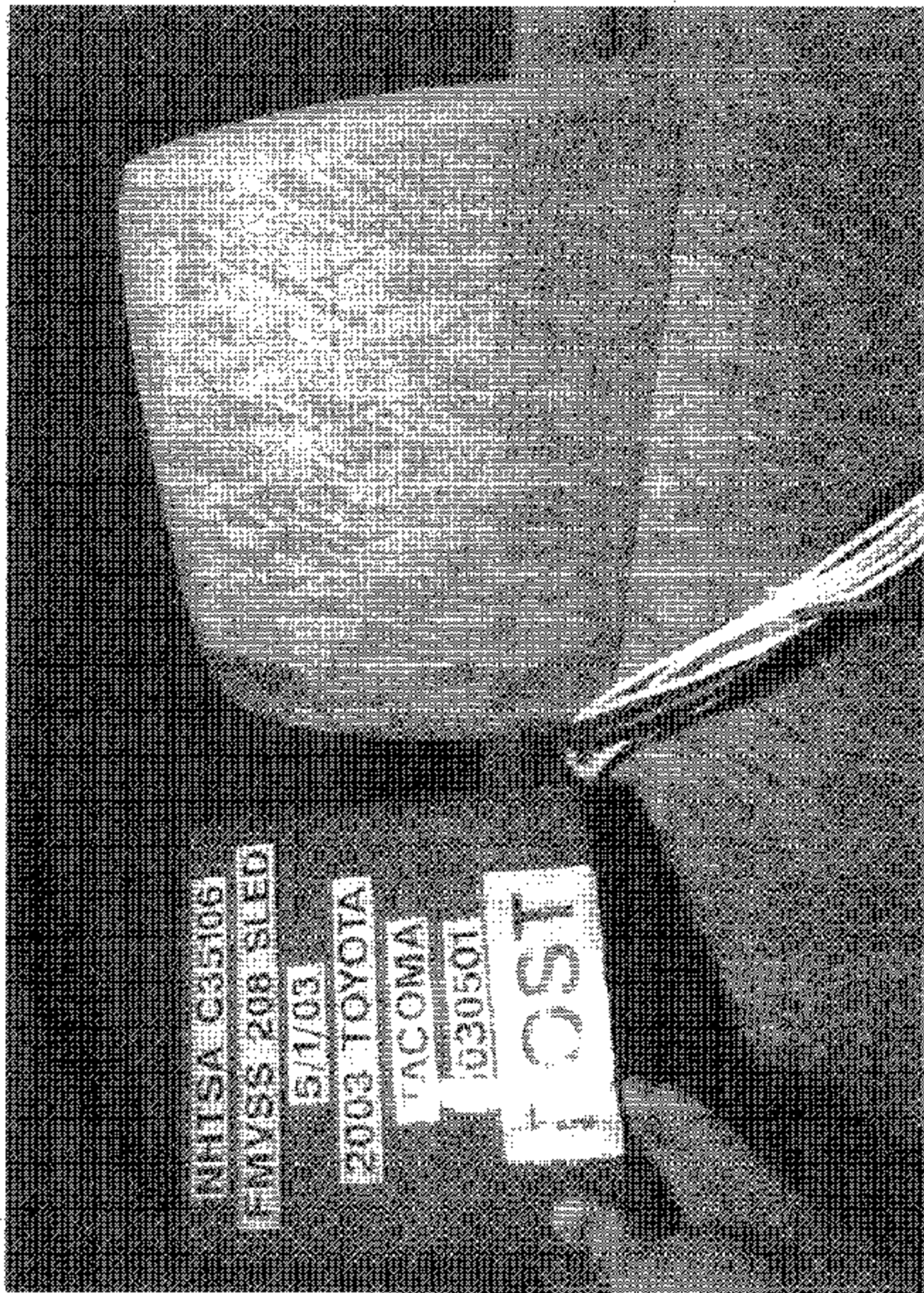


Figure A-27. Post-Test Driver Head Contact - View 2

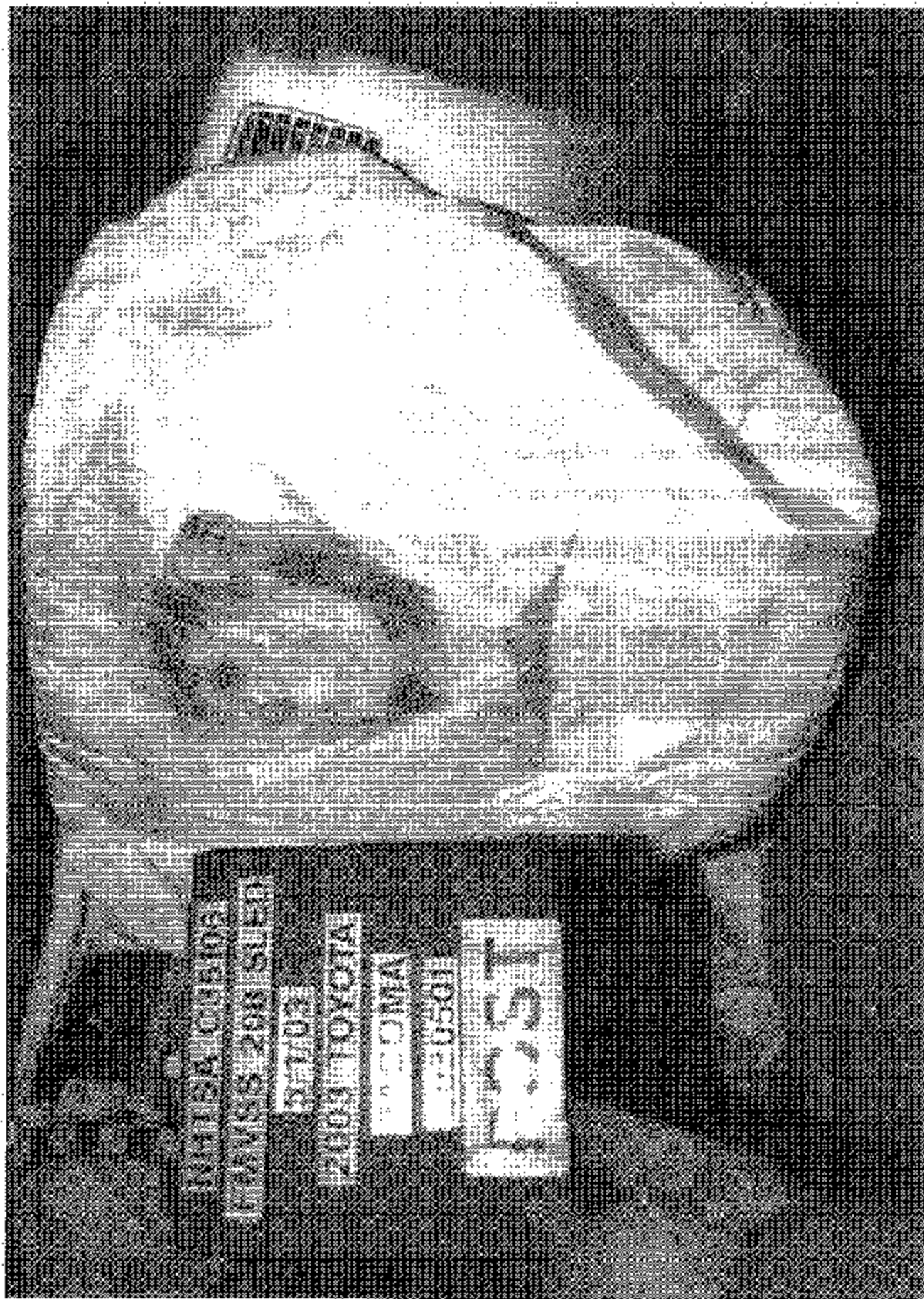


Figure A-28. Post-Test Passenger Airbag View



Figure A-29. Post-Test Passenger Dummy Removed from Vehicle Overall View

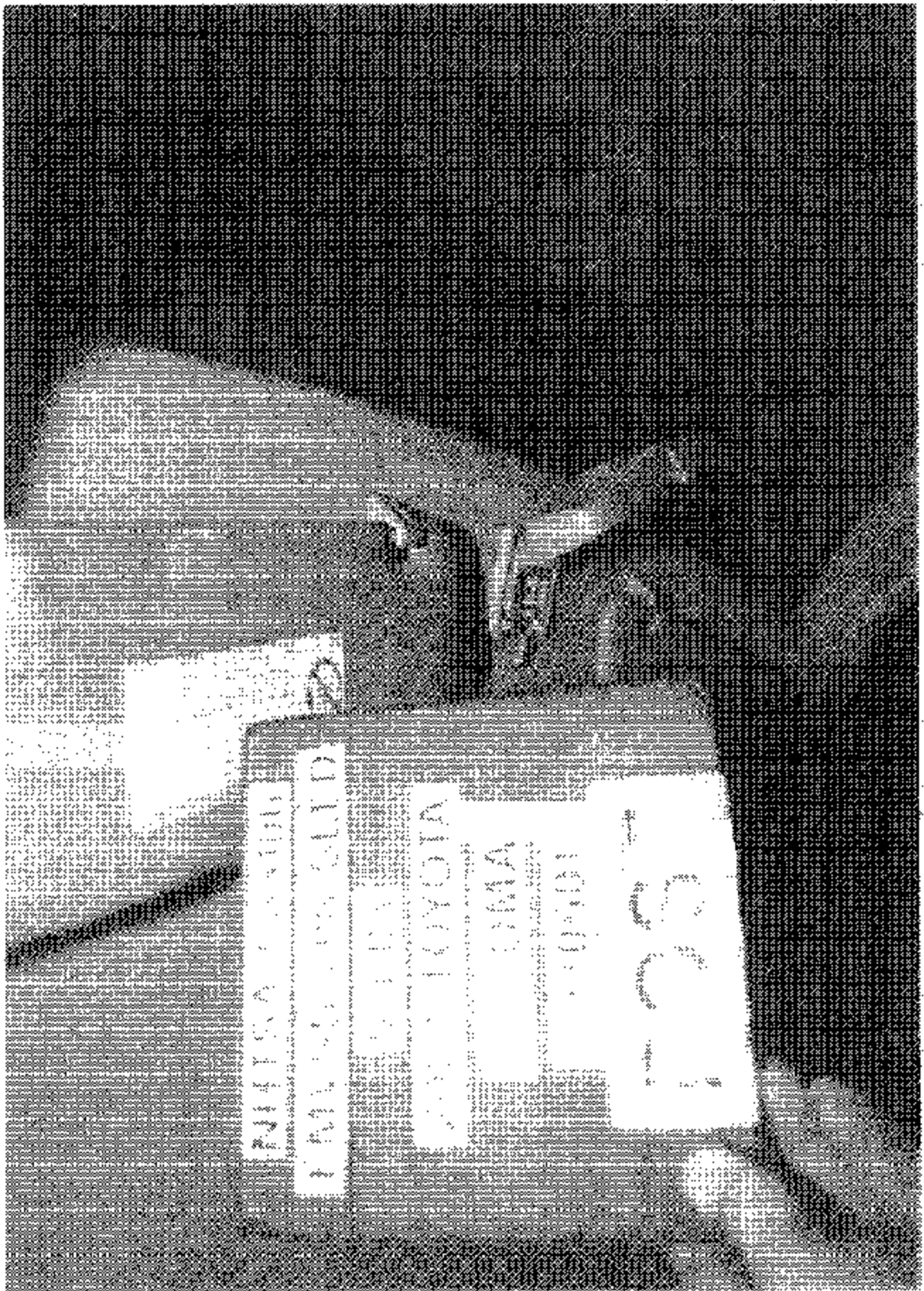


Figure A-30. Post-Test Passenger Head Contact - View 1



Figure A-31. Post-Test Passenger Head Contact - View 2





Figure A-32. Pre-Test Driver Knee Bolster View

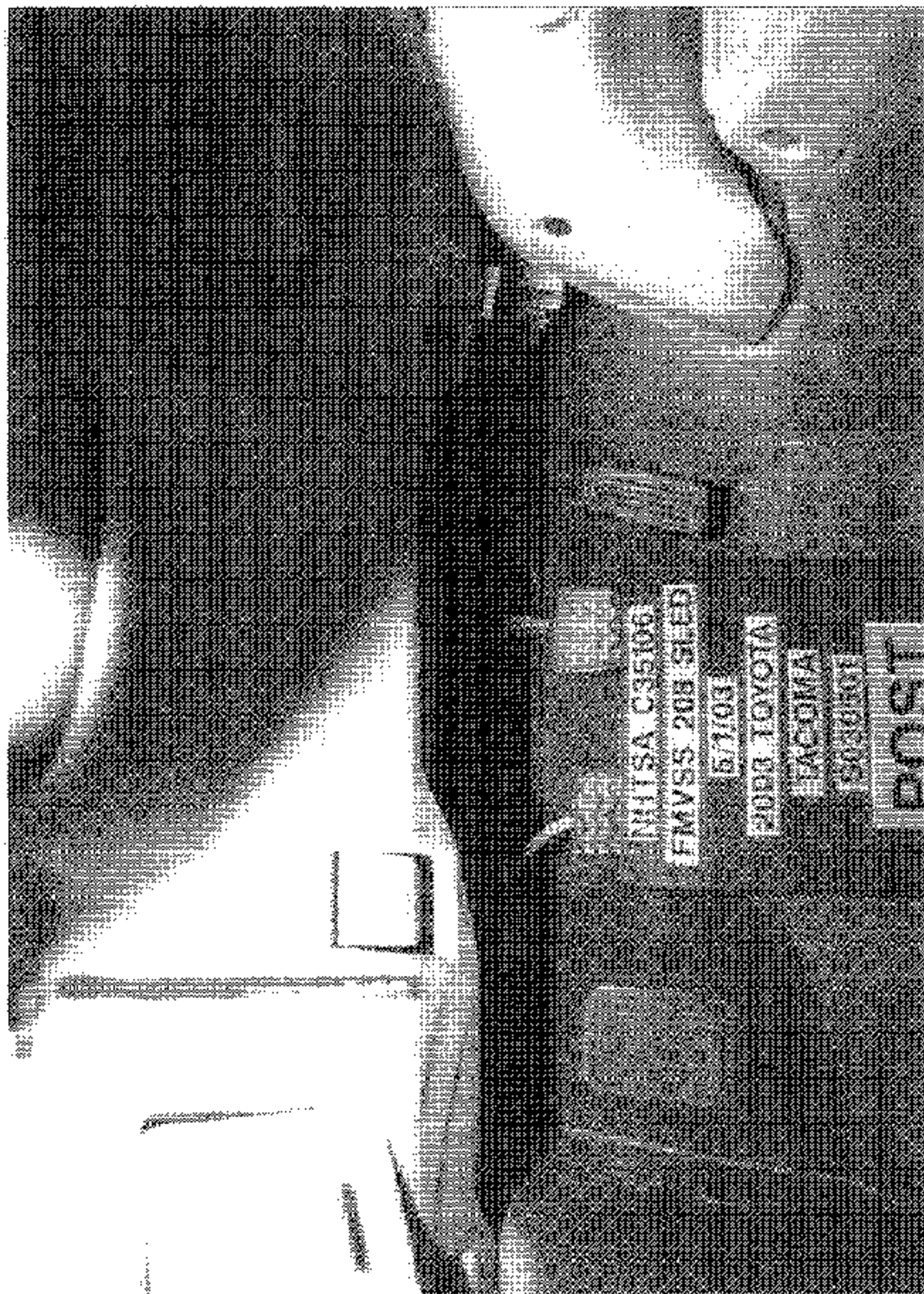


Figure A-33. Post-Test Driver Knee Bolster View

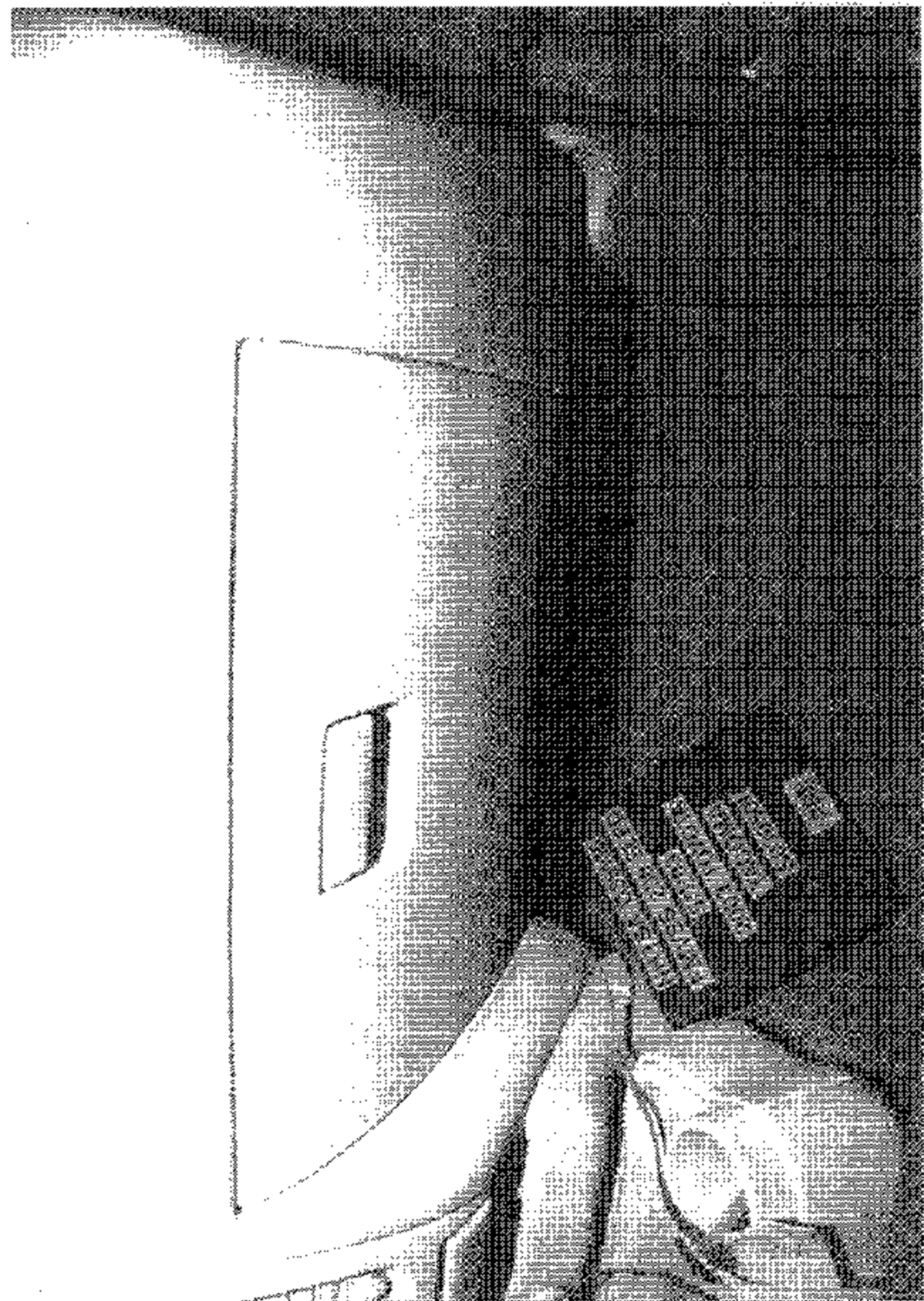


Figure A-34. Pre-Test Passenger Glove Box View



Figure A-25. Post-Test Passenger Glove Box - View 1

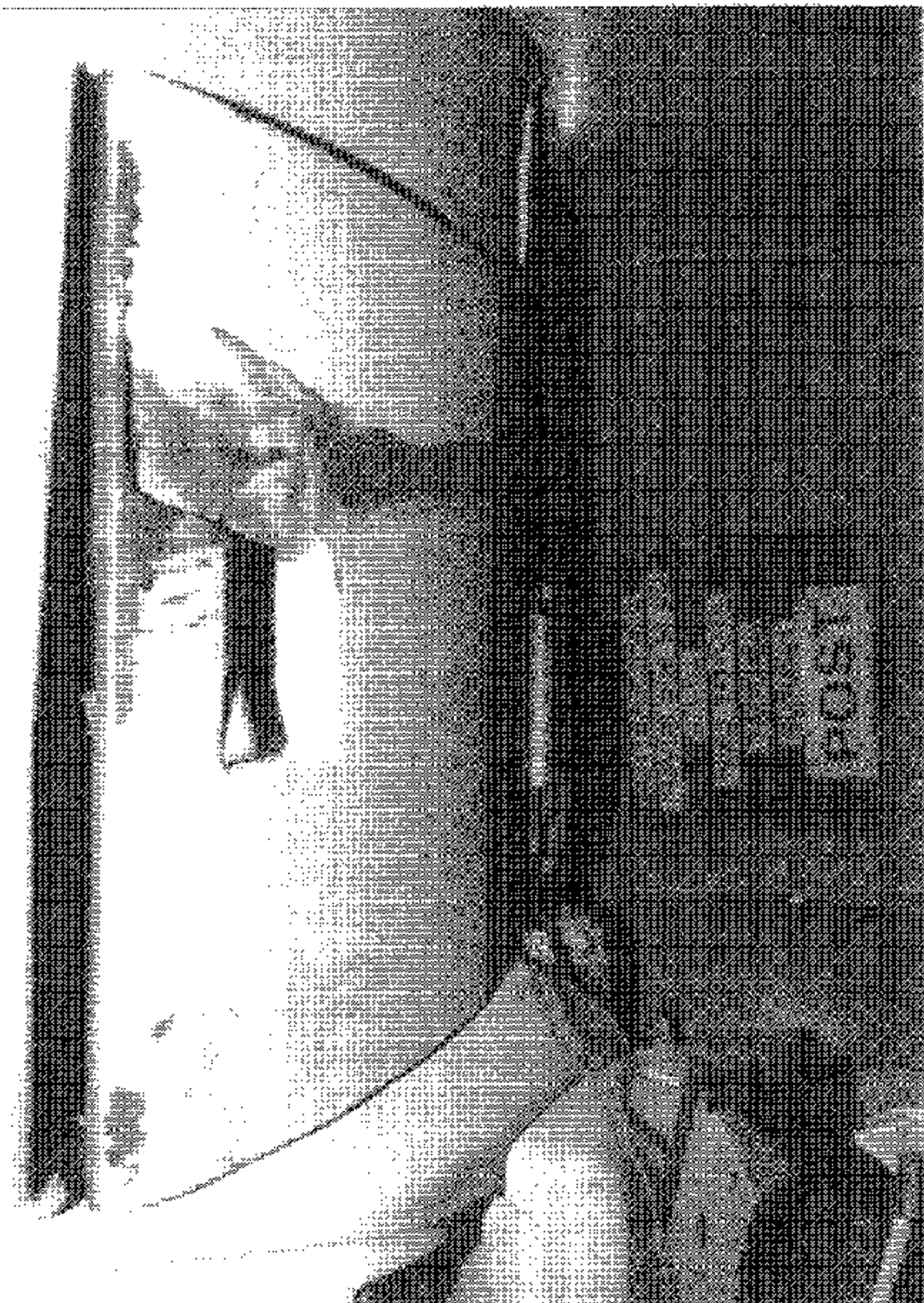


Figure A-36. Post-Test Passenger Glove Box - View 2

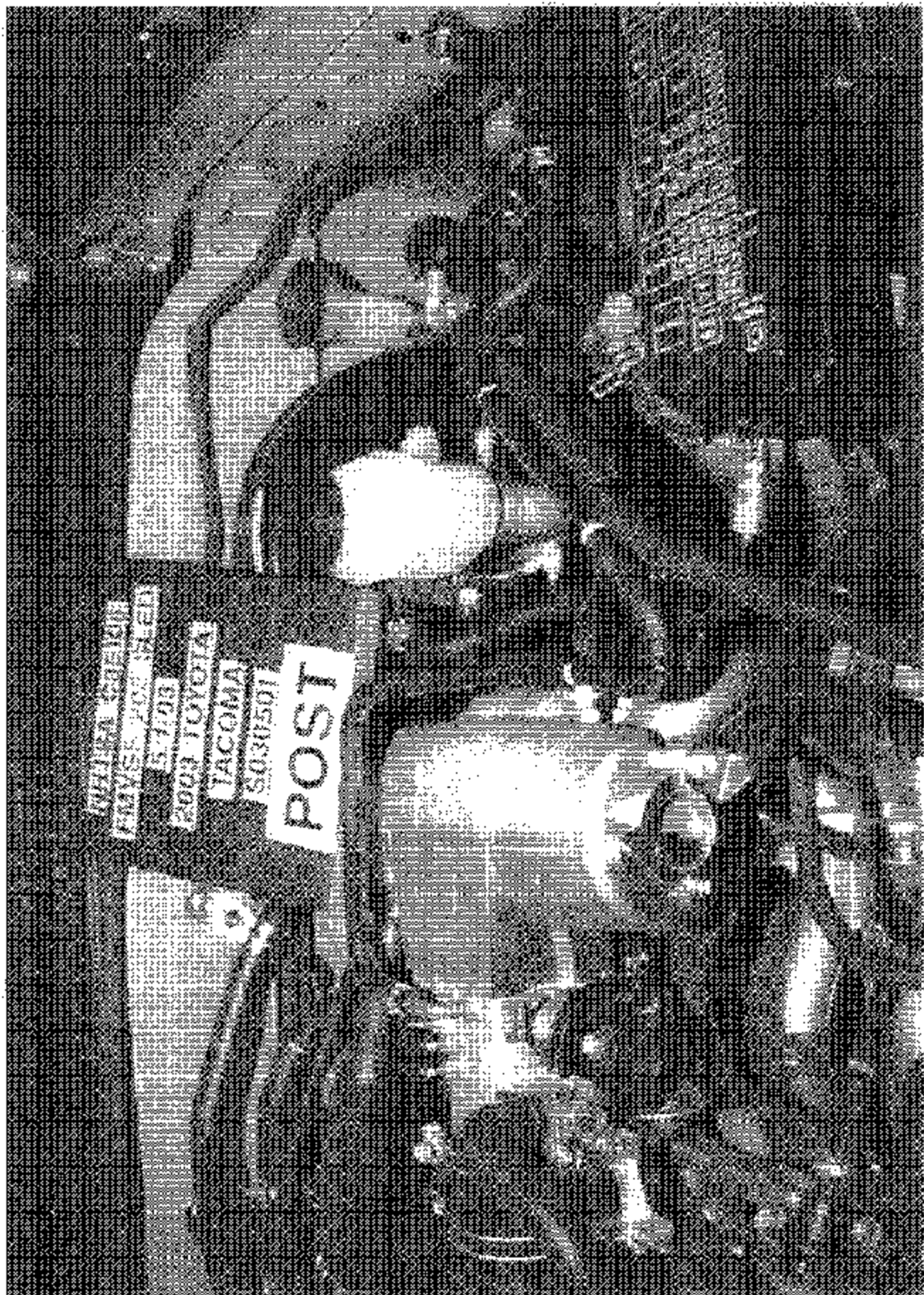


Figure A-37. Post-Test Steering Column Linkage in Engine Compartment View



C35106

RECOMMENDED TIRE INFLATION PRESSURE (kPa) PRESSION DE PNEUS (PSI)		FRONT	REAR
TIRE SIZE DIMENSIONS	AV	AR	
P205/75R15 97S	200 (29)	200 (29)	
P235/55R16 96T	200 (29)	220 (32)	
See Owner's Manual for additional information. Voir le Manuel du Propriétaire pour de plus amples informations.			
04010	KB		

Figure A-39. Pre-Test Vehicle Tire Information Label View



## Appendix B

### Data Plots

C35106 / 2003 IDYDIA IACIMP

SLED ACCELERATION

FLYSS 208 SLED TEST

TEST NUMBER: S030501

TRC NUMBER: S030501F

60

0

60

-120

-180

-240

-300

ACCELERATION (G x 10<sup>-3</sup>)

TIME (MS)

CHANNEL: SLDXC FILTR: CH1 CLASS 60

PEAK DATA: 1.38 G @ 127.57 MS; -18.13 G @ 53.12 MS

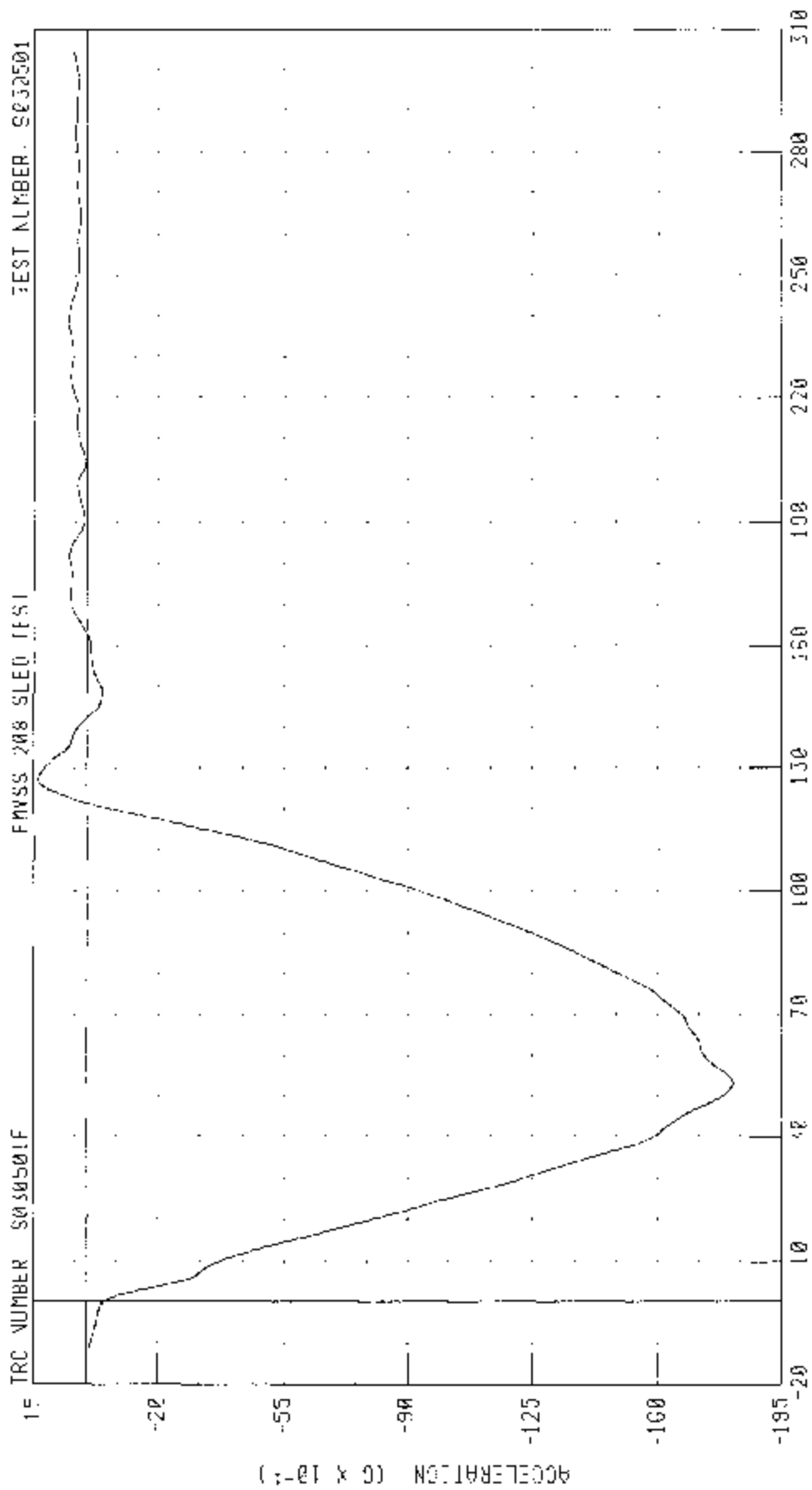
035106 / 2003 TOYOTA TACOMA

SLED ACCELERATION

FMVSS 208 SLED TEST

TRC NUMBER S030501F

TEST NUMBER S032501



CHANNEL: SLDXG FILTER: CR CLASS: 50

PEAK DATA 1 38 0 0 127 52 15, -18 13 0 0 53 12 15

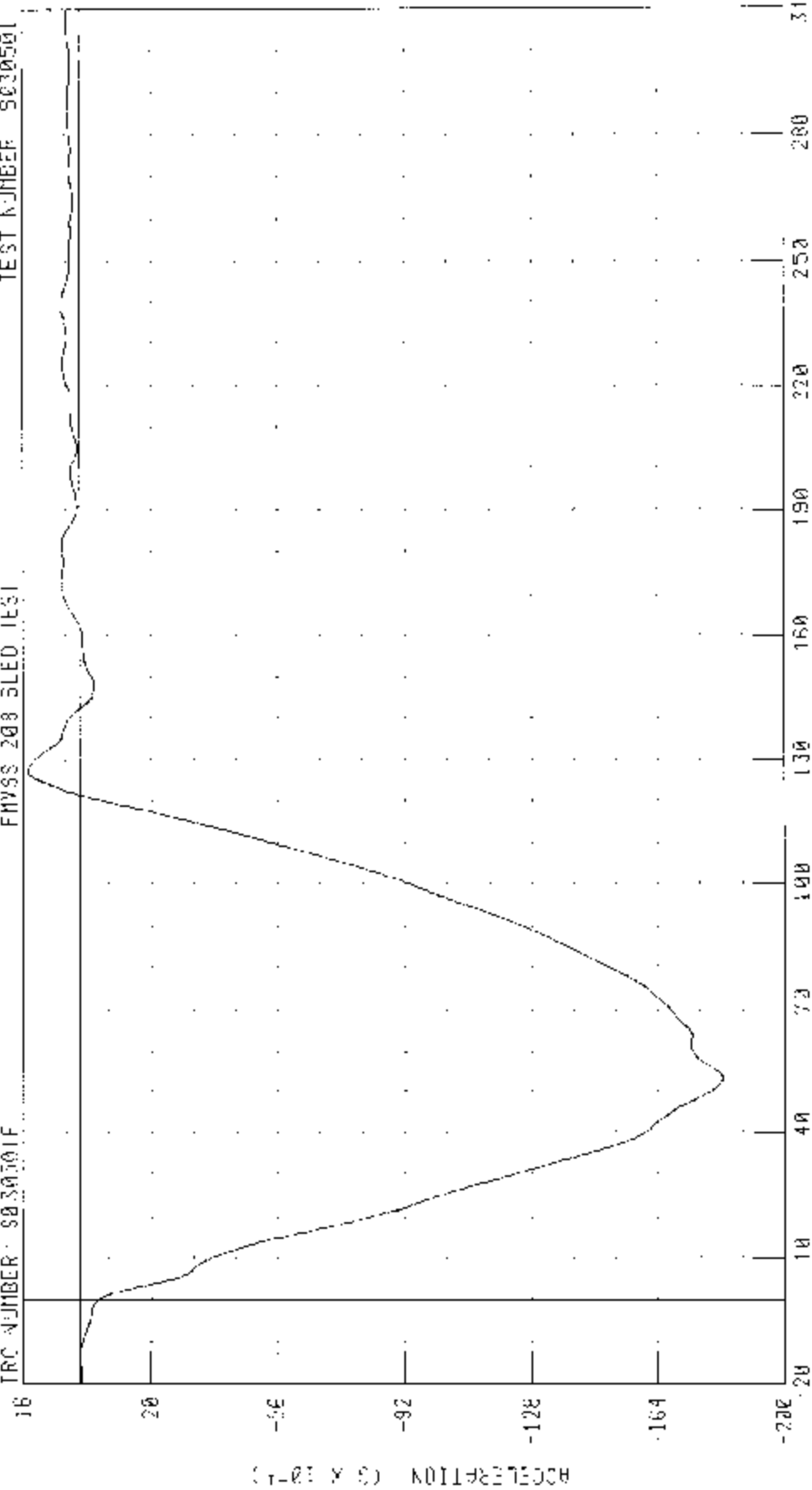
035106 / 2003 TOYOTA TACOMA

SIED ACCELERATION - BACKUP

FMVSS 208 BLEED TEST

TEST NUMBER S030501

TRC NUMBER S030501F



TIME (MS)

FEED DATA 1.50 G @ 127.50 MS, -12.24 G @ 53.04 MS

CHANNEL SLEIGH FILTER CH. CLASS G0

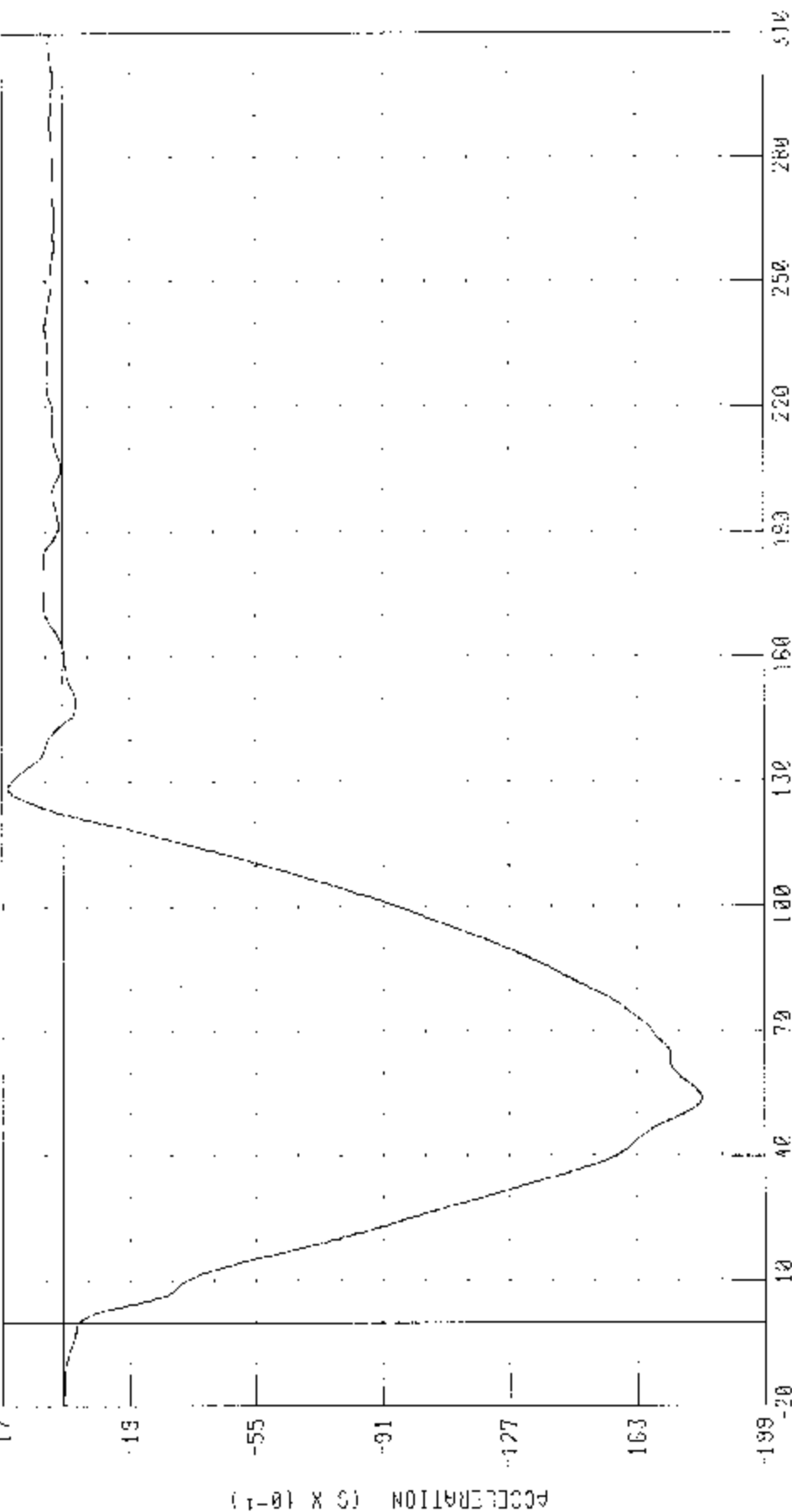
ACCELERATION (G X 10^-1)

035106 / 2003 TOYOTA TACOMA  
SLED ACCELERATION FOR TIMING CIRCUIT  
FMSV 208 SLED TEST

TEST NUMBER: 5030501

TRC NUMBER: S030501F

17



TIME (MS)

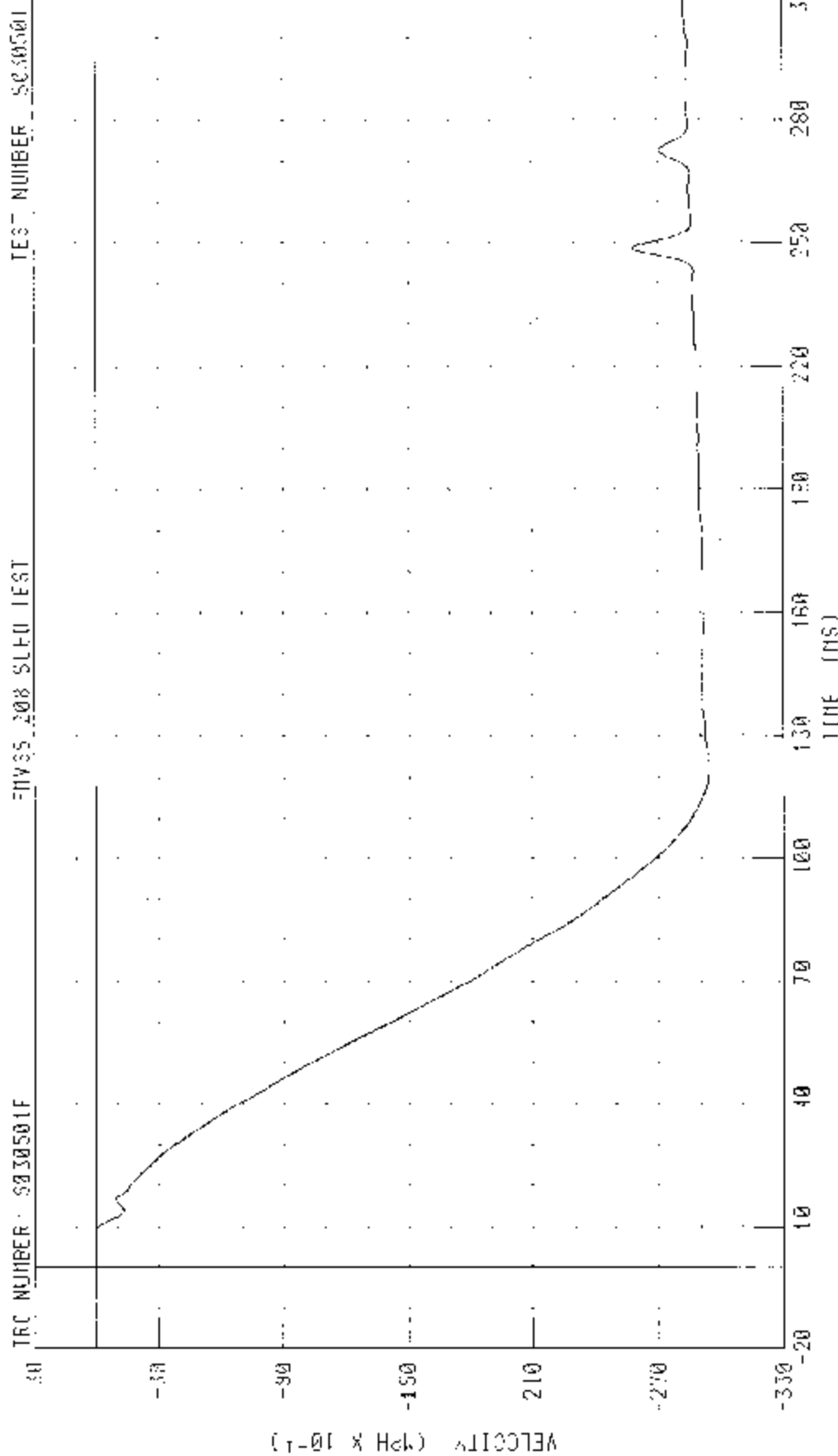
PEAK DATA 1 55 6 3 129 43 MS, 10.15 0 0 53.04 MS

CHANNEL: SLOXCT FILTER: CF CLASS 60

035106 - 2003 TOYOTA TACOMA

MEASURED VELOCITY IRAP

TRC NUMBER: S030501F TEST NUMBER: S0305001



PEAK DATA: 0 05 MPH @ 8 00 MS; -29 40 MPH @ 122 64 MS

CHANNEL SLOVY FILTER CH. CLASS GO

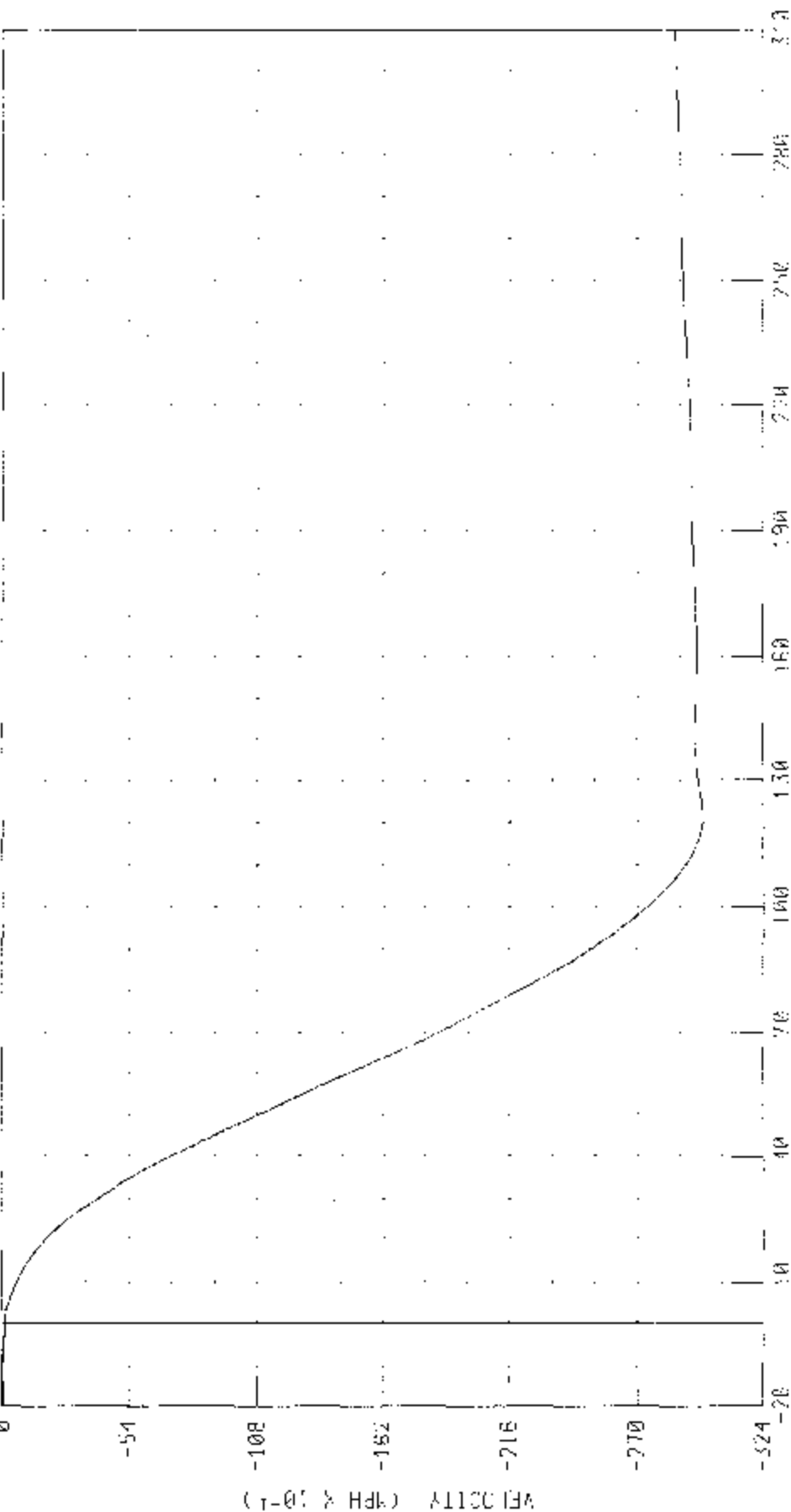
035105 / 2003 TOYOTA TACOMA

SFV VELOCITY (INTEGRATED)

FINES 200 SLEF TEST

TEST NUMBER 0030501

TEST NUMBER 0030501



TIME (MS)

CHANNEL: SLDXVI FILTER: CH. CLASS: 100

PEAK DATA: 0.01 MPH @ 130.00 MS, 29.79 MPH @ 122.00 MS

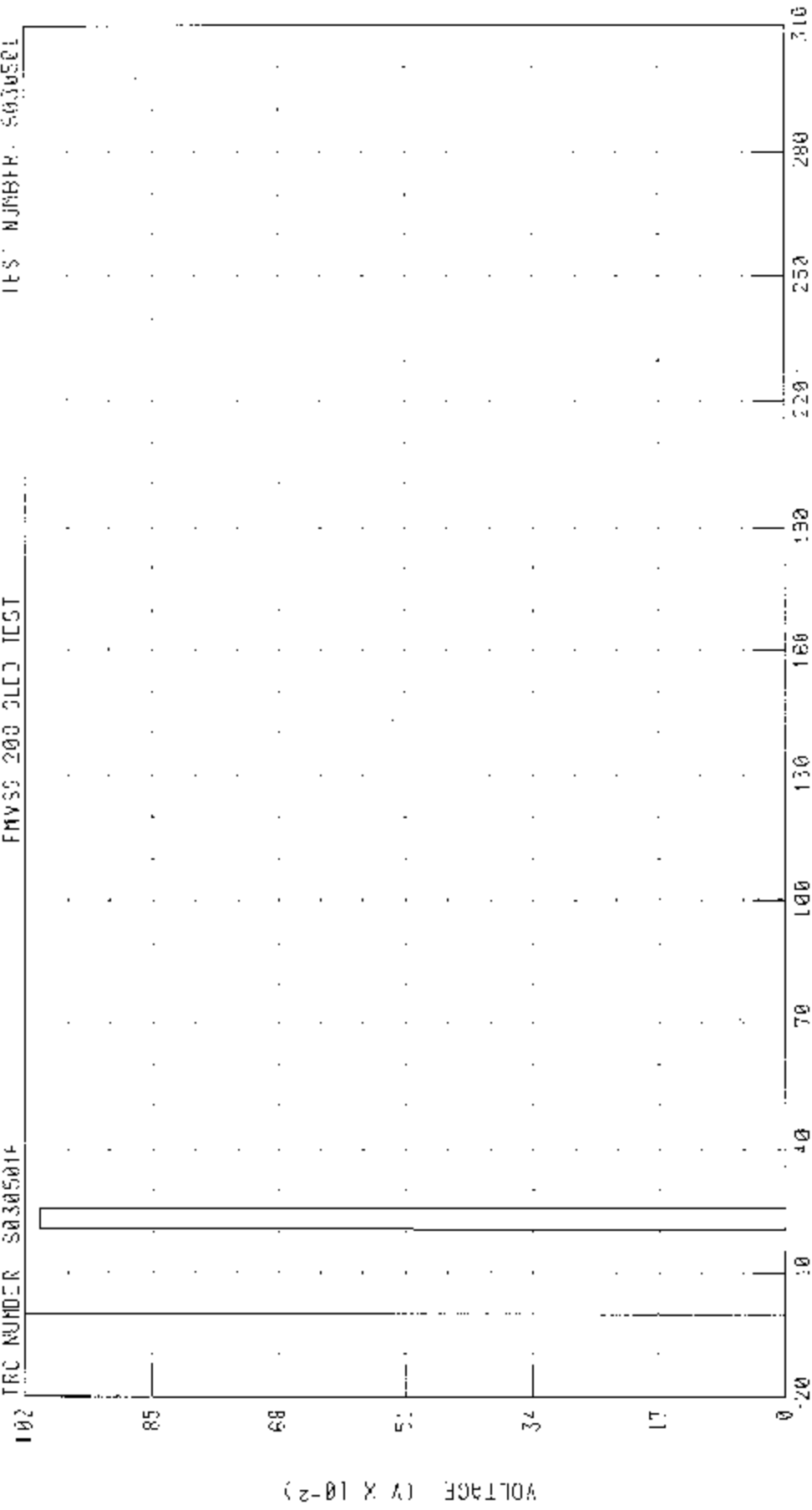
C35106 - 2003 TOYOTA TACOMA

DRIVER AIRBAG EVENT

FMVSS 200 GLED TEST

IFS NUMBER: S030501

TRC NUMBER S030501F



PEAK DATA: 1.00 V @ 20.80 MS; 0.00 V @ -20.00 MS

CHANNEL D:BET1 FILTER CIL CLASS 1000



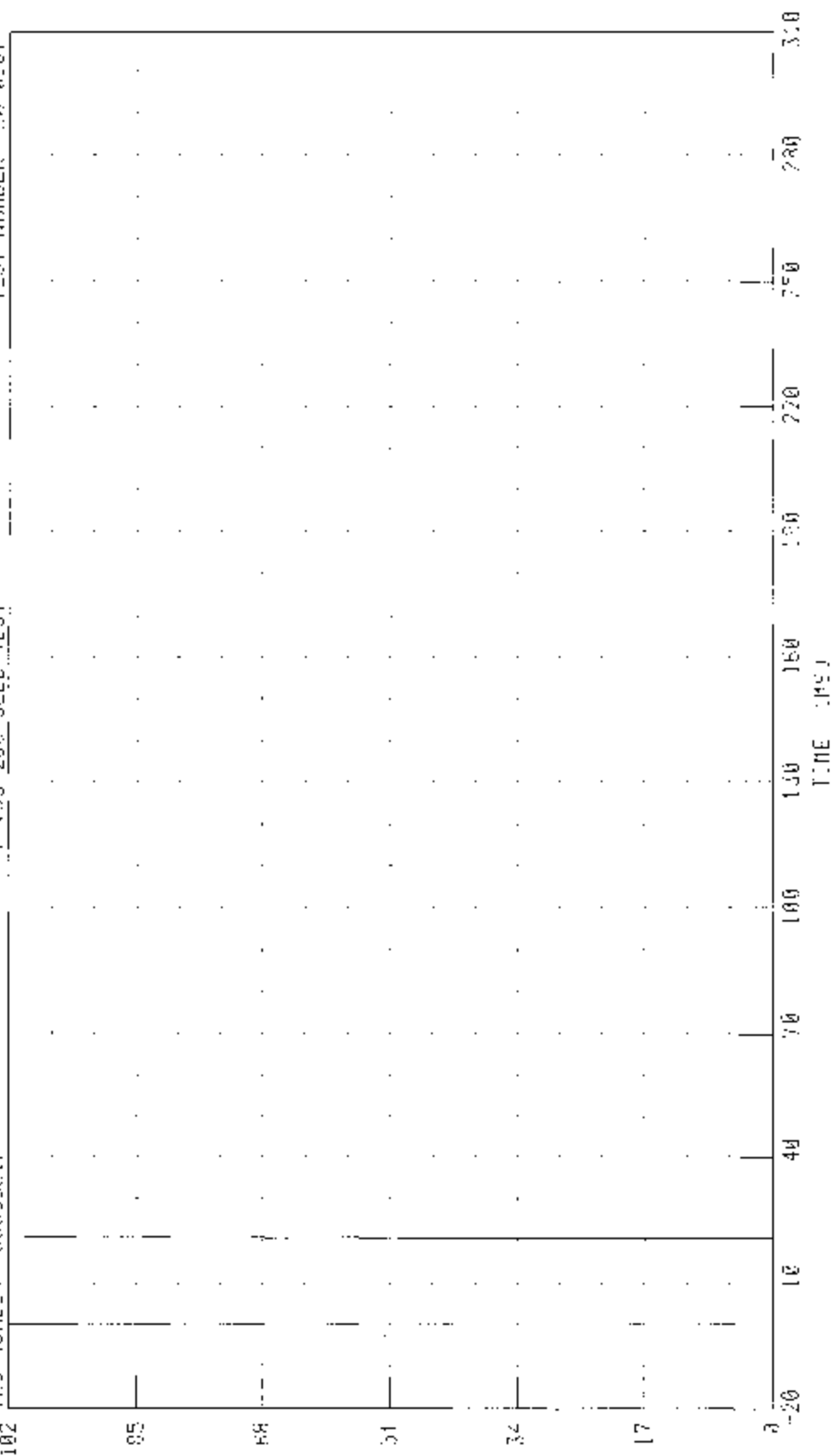
035106 / 2003 TOTAL T400MA

PASSENGER AIRBAG EVENT

FVSS 208 SLED TEST

TRC NUMBER: S030501F

TEST NUMBER: S030501



03-07 X 1001 PCA

CHRYSLER PASE11 FAL112 OF CLASS 1030

PLAK 0919 1 00 0 0 20 00 05: 0 00 0 0 -20 00 05

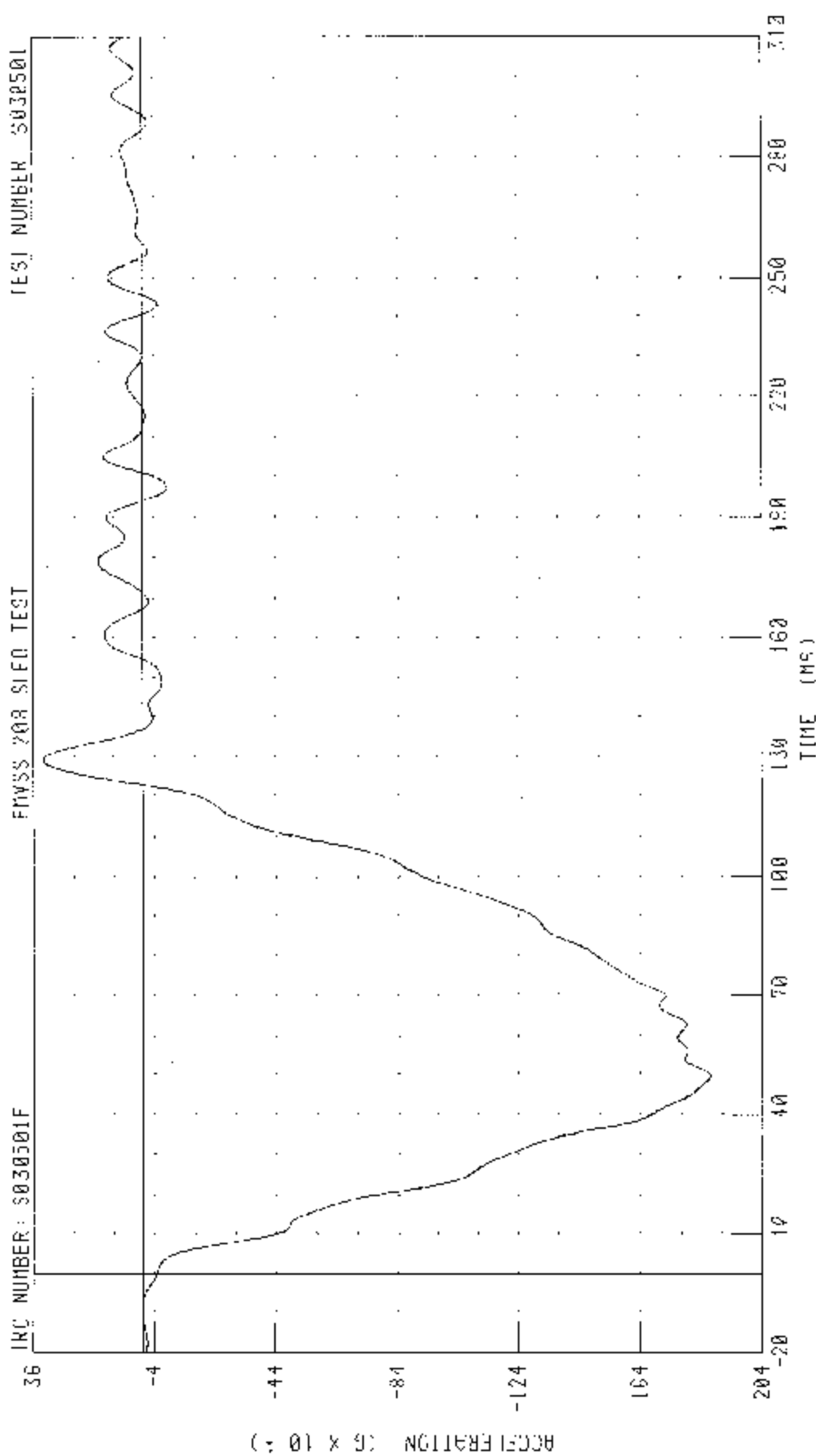
1:3510S / 2003 TOYOTA TACOMA

REAR AXLE X-AXIS ACCELERATION

FWSS 200 SIED TEST

INC NUMBER: S030501F

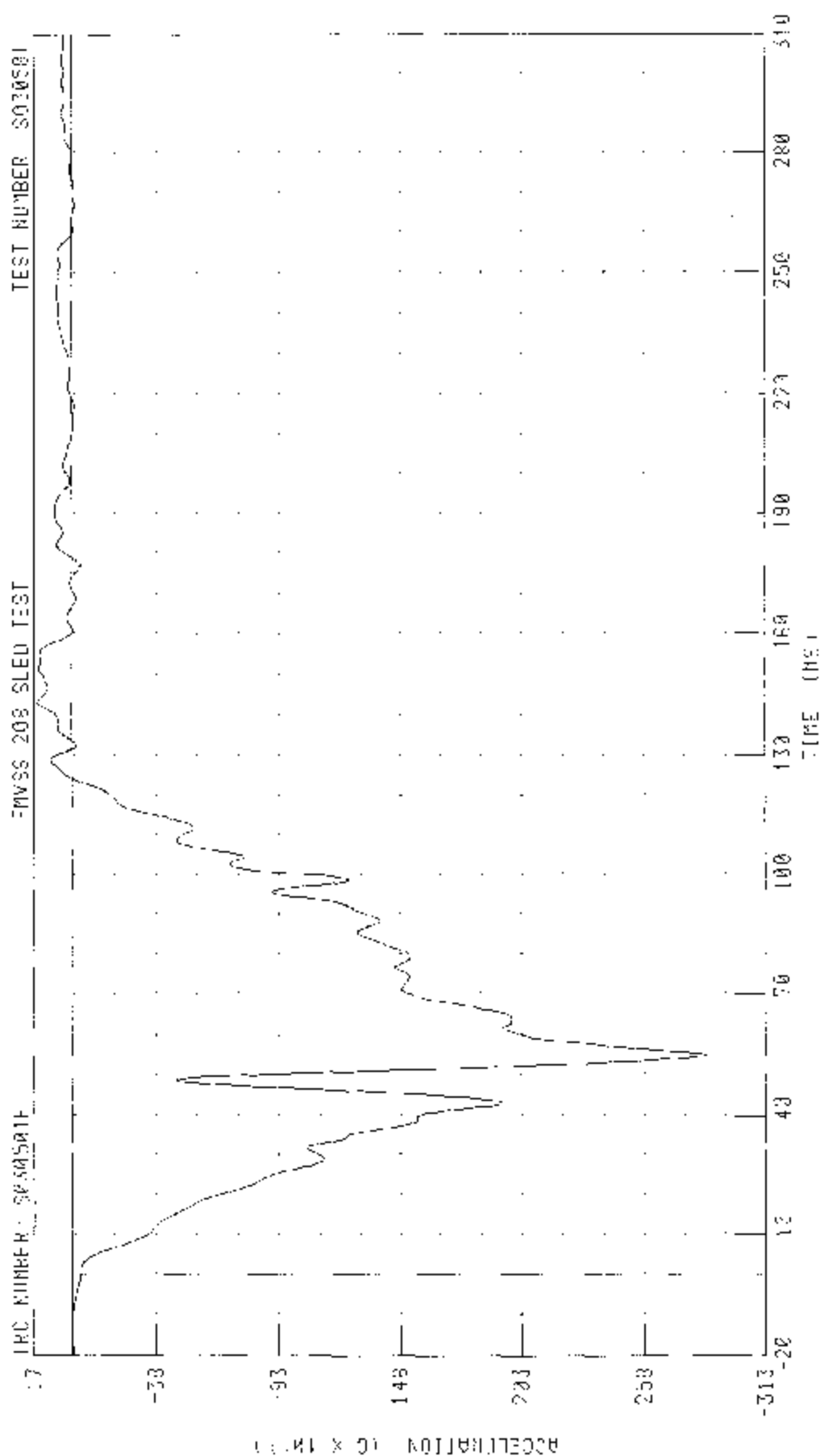
TEST NUMBER: S030501



CHANNEL RAXG FILTER: CH CLASS 60

PEAK DATA: 3.18 G @ 129.04 MS, -18.67 G @ 49.23 MS

C35106 / 2003 TOYOTA TACORA  
 CH1 RUDY A REAR FLOORPAN X-AXIS ACCELERATION  
 FMVSS 208 SLED TEST



CHANNEL: 10206 FILTER: CIL CLASS: 06

TIME (MS)

1 55 0 3 143 20 103 -28 50 0 6 54 96 45

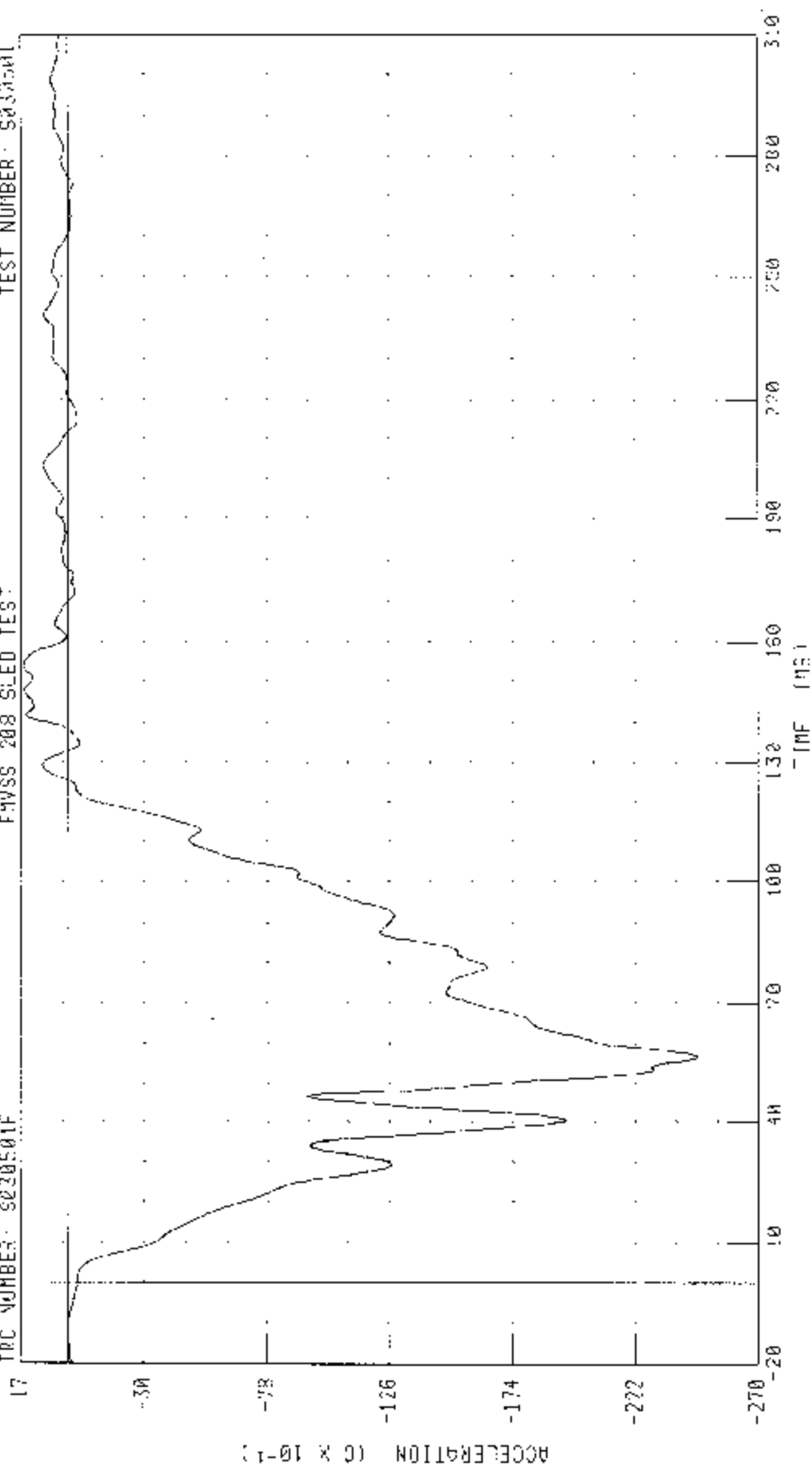
C35106 / 2003 TOYOTA YACOMA

RIGHT BODY AT REAR FLOORPAN X AXIS ACCELERATION

TRC NUMBER: S030501F

FWSS 208 SLED TEST

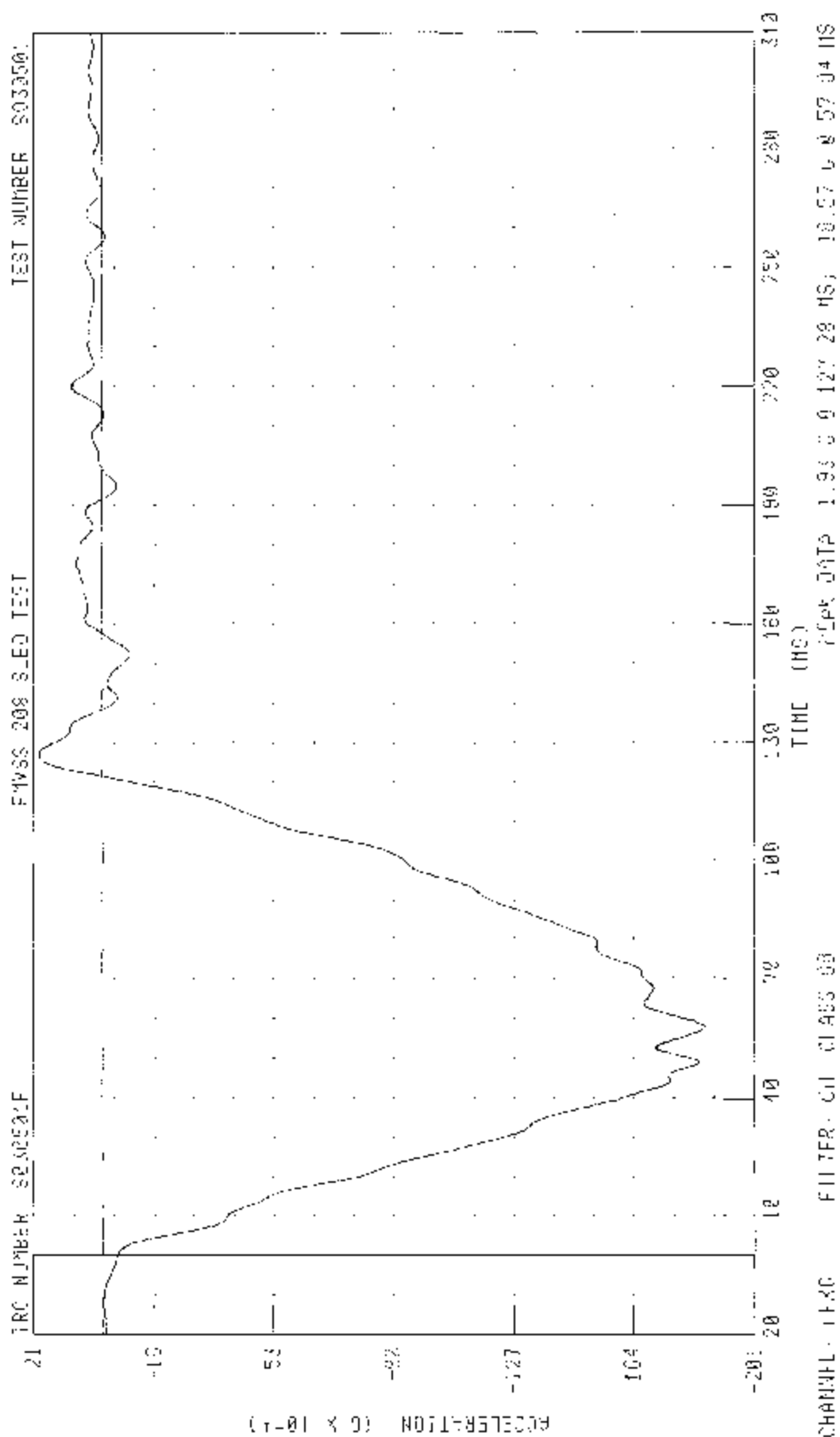
TEST NUMBER: S030501



CHANNEL: RBXC FILTER: CH. CLASS 60

PEAK DATA: 72.0 @ 153.04 MS, -24.04 @ 56.48 MS

050108 / 2003 10/07A TACOMA  
 LUP VEHICLE TRAFFIC & AXIS ACCELERATION  
 F1VSS 208 SLED TEST



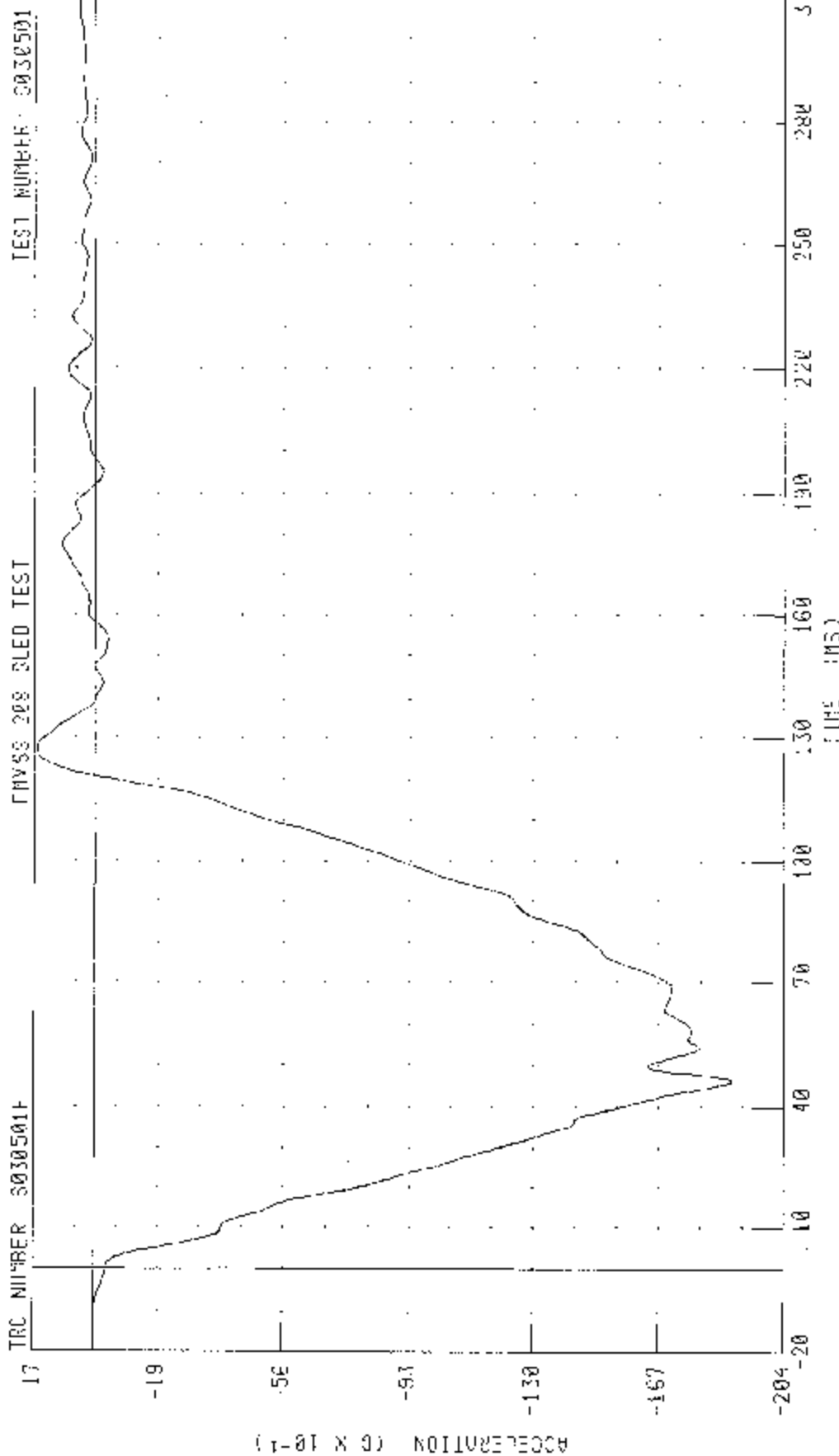
ACCELERATION (G X 10<sup>-1</sup>)

TIME (MS)

CHANNEL: F1VSS FILTER: CH CLASS: 00

PCPK DATE: 1993 09 12 12:20 MS; 10:57 08 57 04 MS

CJ5106 / 2033 TOYOTA TACOMA  
 RIGHT VEHICLE FRAME X AXIS ACCELERATION  
 TRVSS 208 SLED TEST



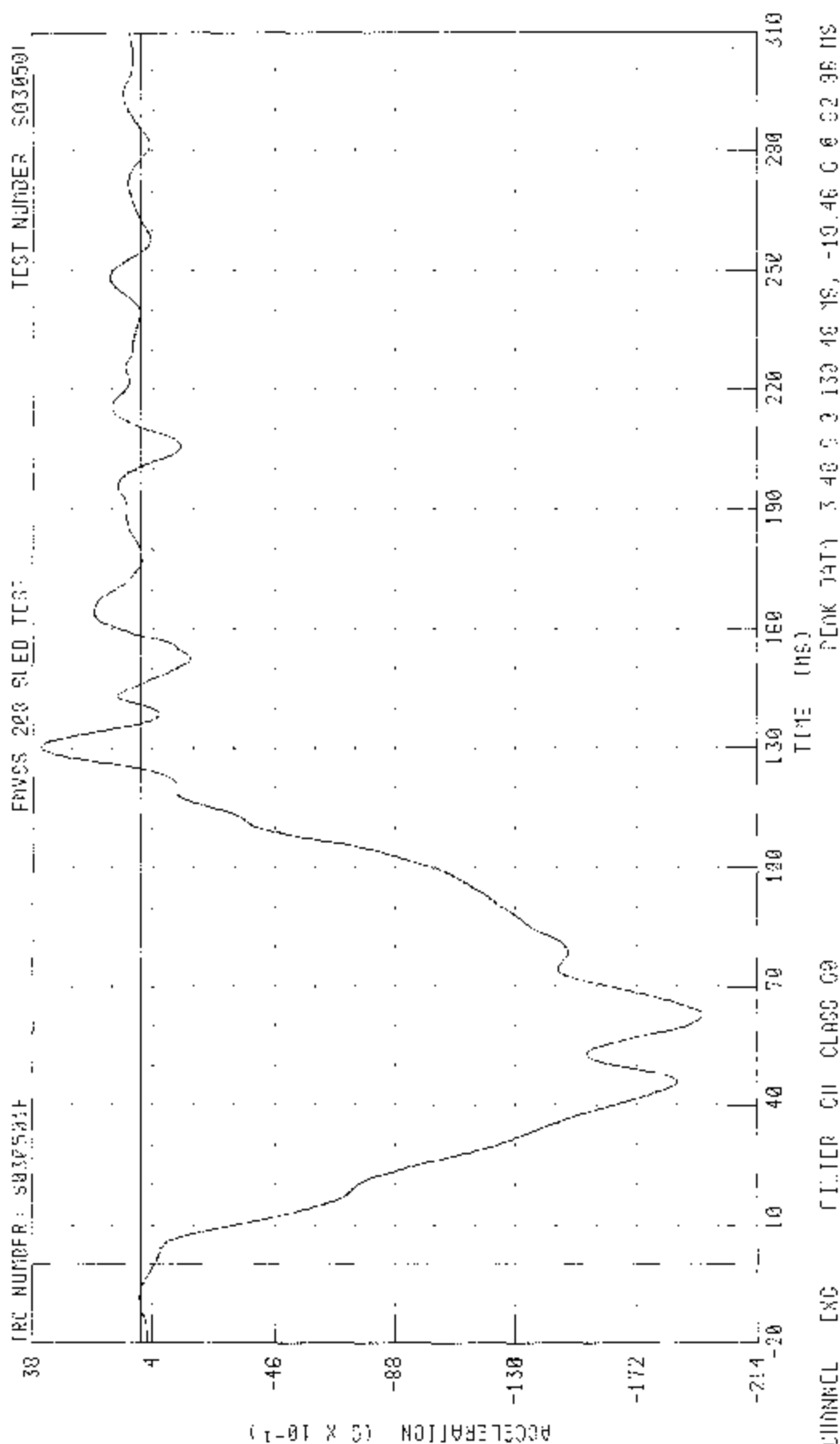
CHANNEL: RTXC FILTER: CNL CLASS: 00

PEAK DATA: 171.08 127.44 MS, 10.34 G @ 16.2+ MS

EXE106 / 2003 TOYOTA ACCRA  
TOP ENGINE X-AXIS ACCELERATION  
FNVS 200 SLED TEST

TRC NUMBER: S030501F

TEST NUMBER: S030501



CHANNEL: EXC FILTER: CH: CLASS: G0

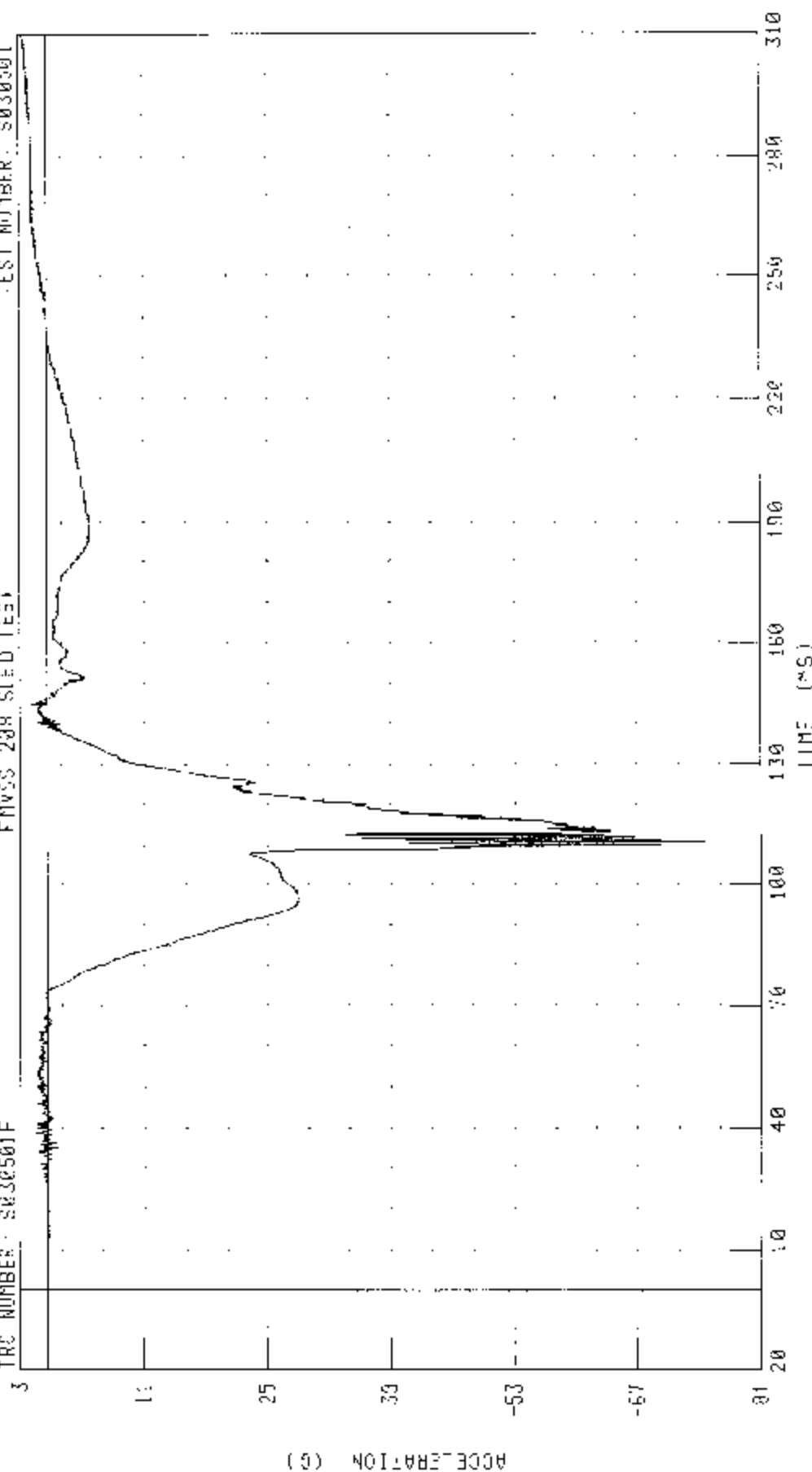
035106 / 2003 TOYOTA IACUMP

DRIVER HEAD X-AXIS ACCELERATION

FNVS5 23H SLED TEST

TRC NUMBER - S030501F

TEST NUMBER - S030501



CHANNEL - HEDX01 FILTER - CH. CLASS 100K

PEAK DATA - 274 G @ 310.00 MS, -74.87 G @ 111.00 MS

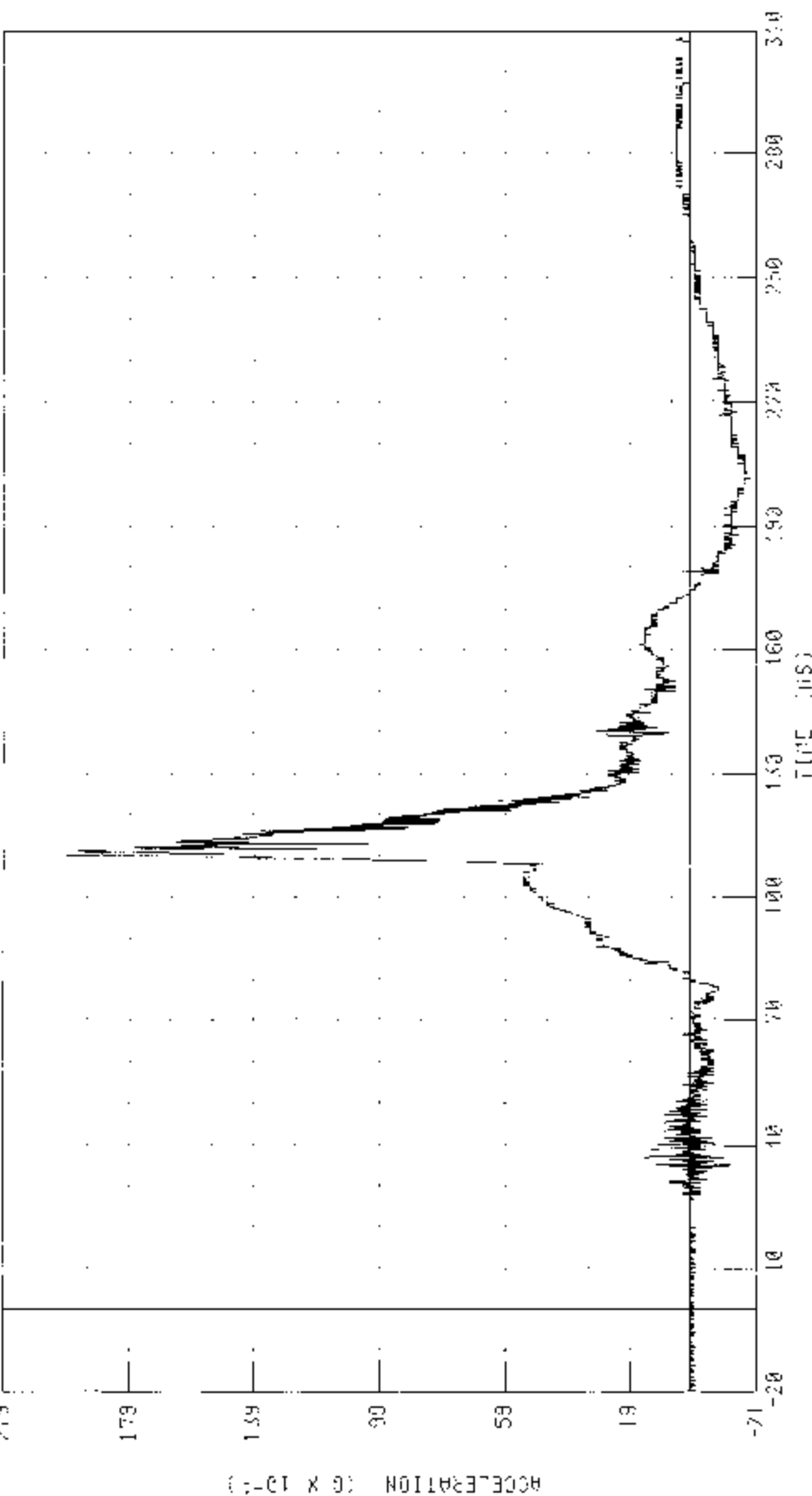


C35106 - 2003 TOP GUN ALPHA  
DRIVER HEAD Y-AXIS ACCELERATION

TRC NUMBER S030501F

FNVS 208 SLED TEST

TEST NUMBER S030501



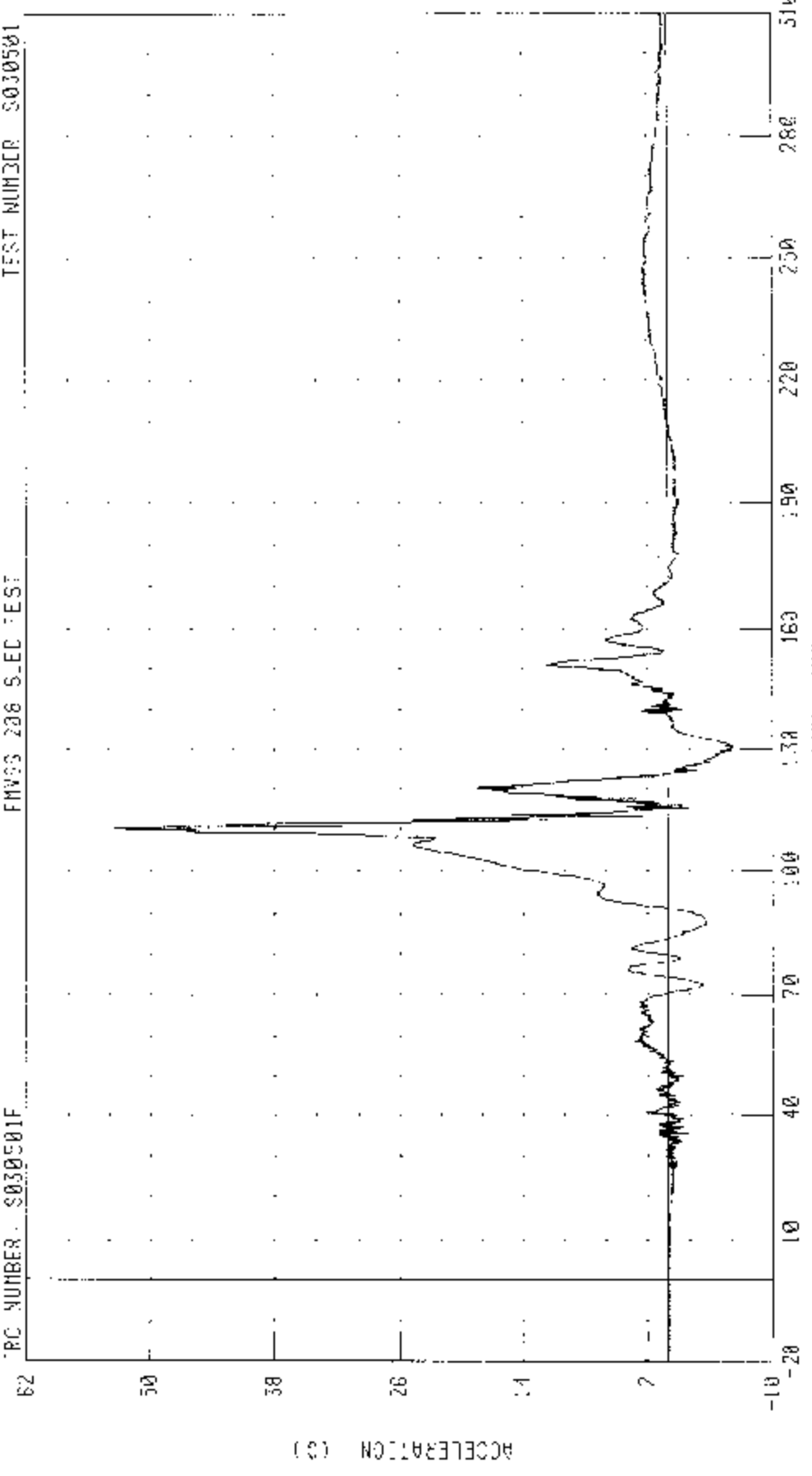
CHANNEL INCUV01 FILTER CH CLASS 1000

PEAK DATA 159.92 0.0 110.24 18.1 1.91 0.0 201.36 1.3

C35106 / 2003 TOYOTA TACOMA  
 DRIVER HEAD Z-AXIS ACCELERATION  
 FMVSS 208 SLED TEST

TEST NUMBER S030501

PC NUMBER S030501F

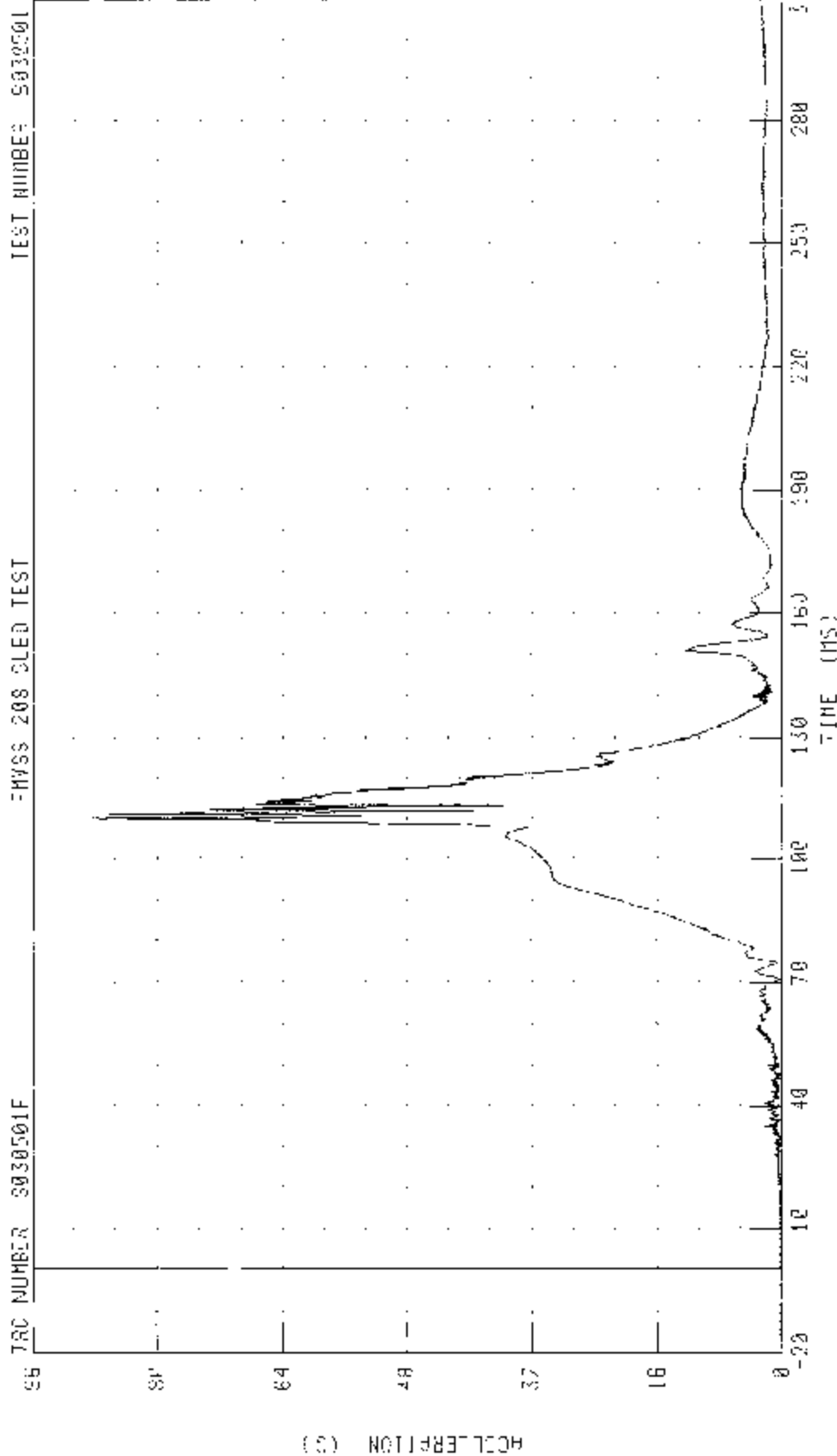


TIME MS

CHANNEL H20701 FILTER CH G1000

PEAK DATA 53.50 0.0 11.0 18 MS -6.25 G @ 150.62 MS

C35106 - 2003 TOYOTA IACORN  
 DRIVER HEAD RESULTANT ACCELERATION  
 -HYSS 208 CLED TEST



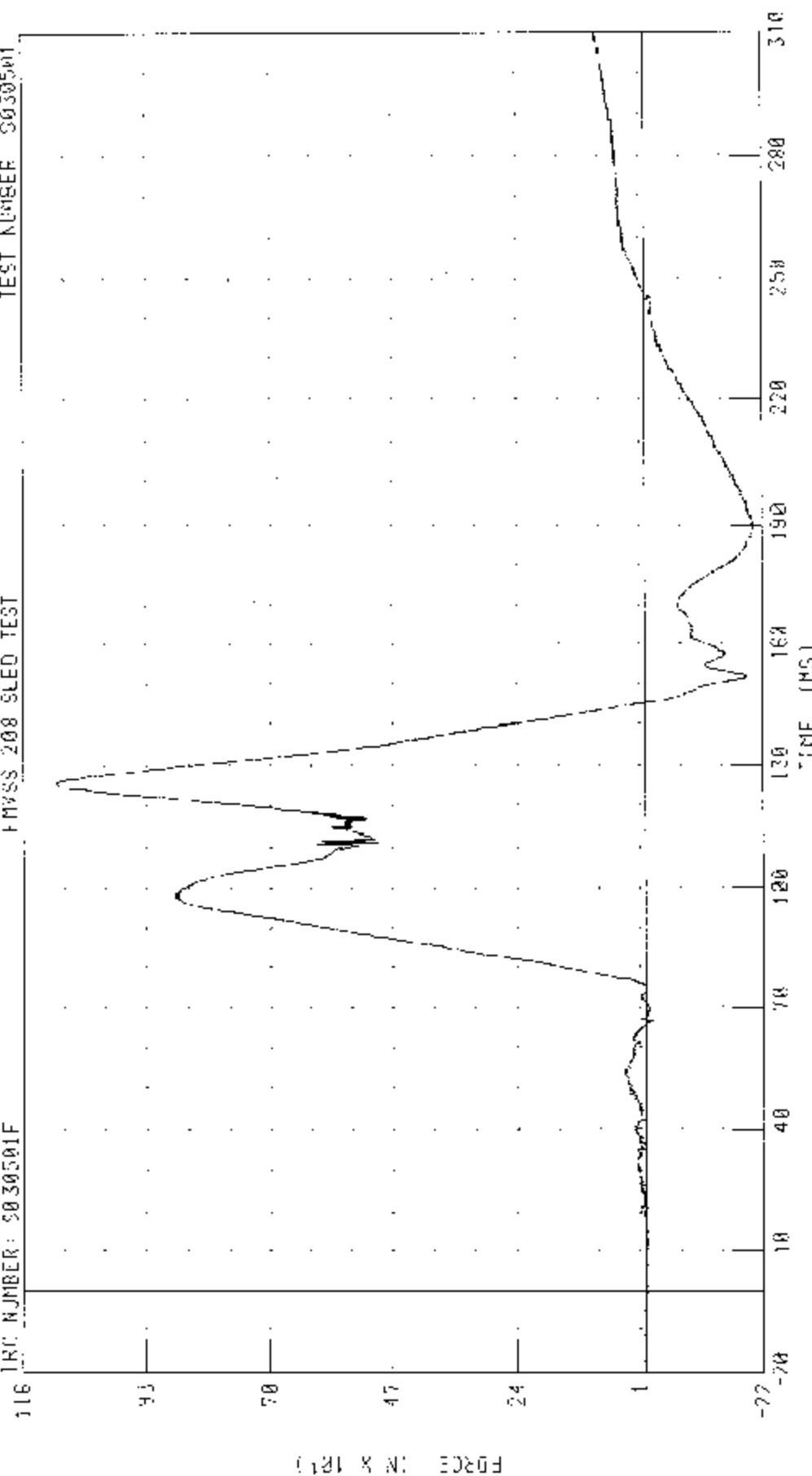
CHANNEL HEDK01 FILTER C- CLASS 1020

PEAK DATA 88.66 C 110.74 MS. 0.04 S 0 -20.00 18

U3J106 / 2003 TOYOTA TACOMA  
 DRIVER NECK X AXIS SHEAR FORCE  
 FMVSS 208 SLED TEST

TEST NUMBER S030501

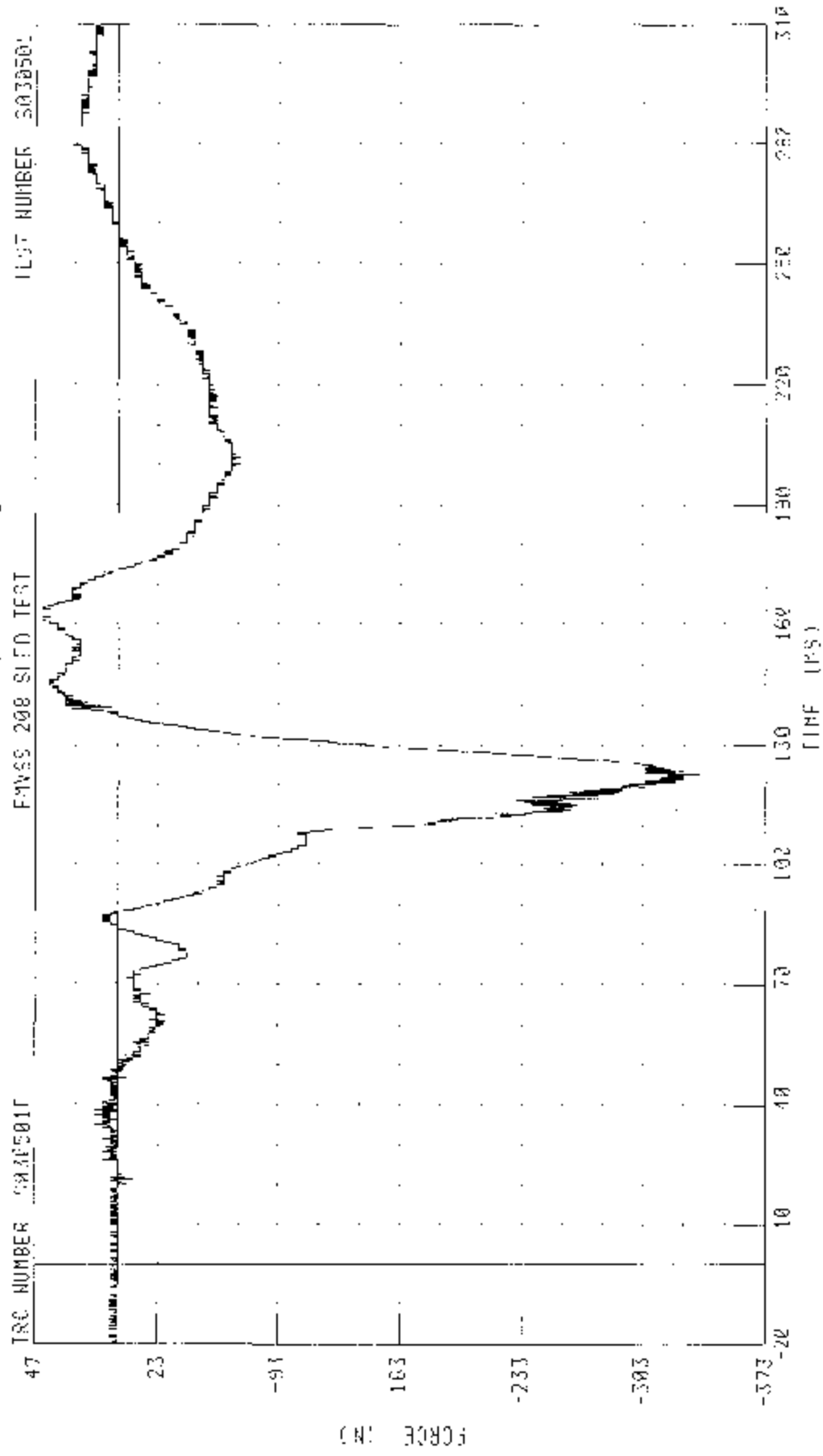
IRC NUMBER: S030501F



CHANNEL: NEKXF1 FILTER: CH CLASS: 1000

PEAK DATA: 1000 16 N @ 125 14 MS, 204 13 N @ 185 80 MS

035106 / 2003 TOYOTA Tacoma  
 DRIVER KNUK Y-AXIS SHOCK FORCE



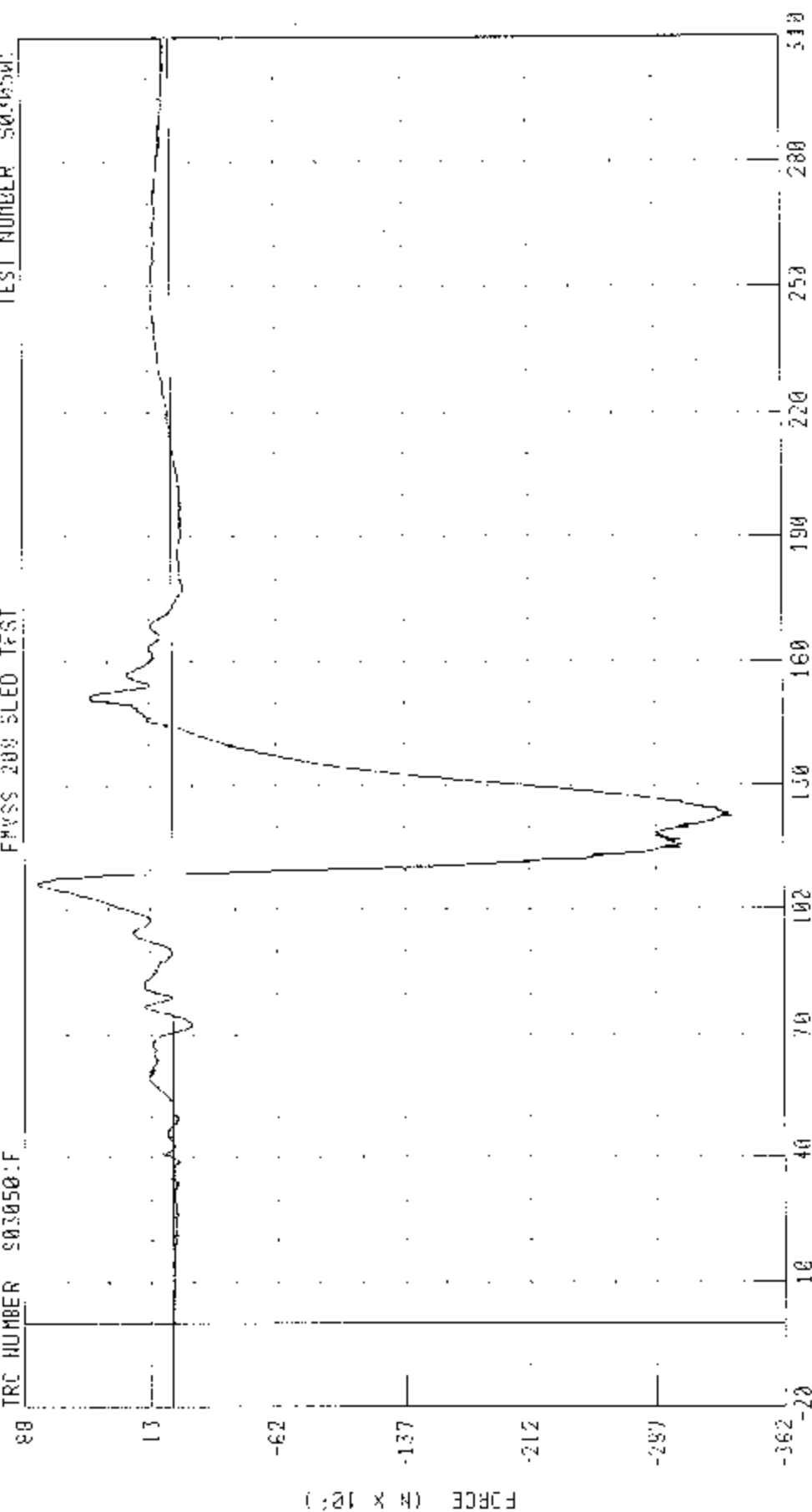
CHANNEL NEK11 FILTER ON CLASS 1000

PEAK DATA: 42.92 N @ 160.36 MS, -330.04 N @ 127.88 MS

C35106 / 2003 TOYOTA TACOMA  
 DRIVER NECK Z-AXIS AXIAL FORCE  
 PHYS 200 BLEED TEST

TEST NUMBER S030501

TRC NUMBER S030501.F



TIME (MS)

PEAK DATA: 802 23 N @ 105.72 MS, 3324.84 N @ 122.80 MS

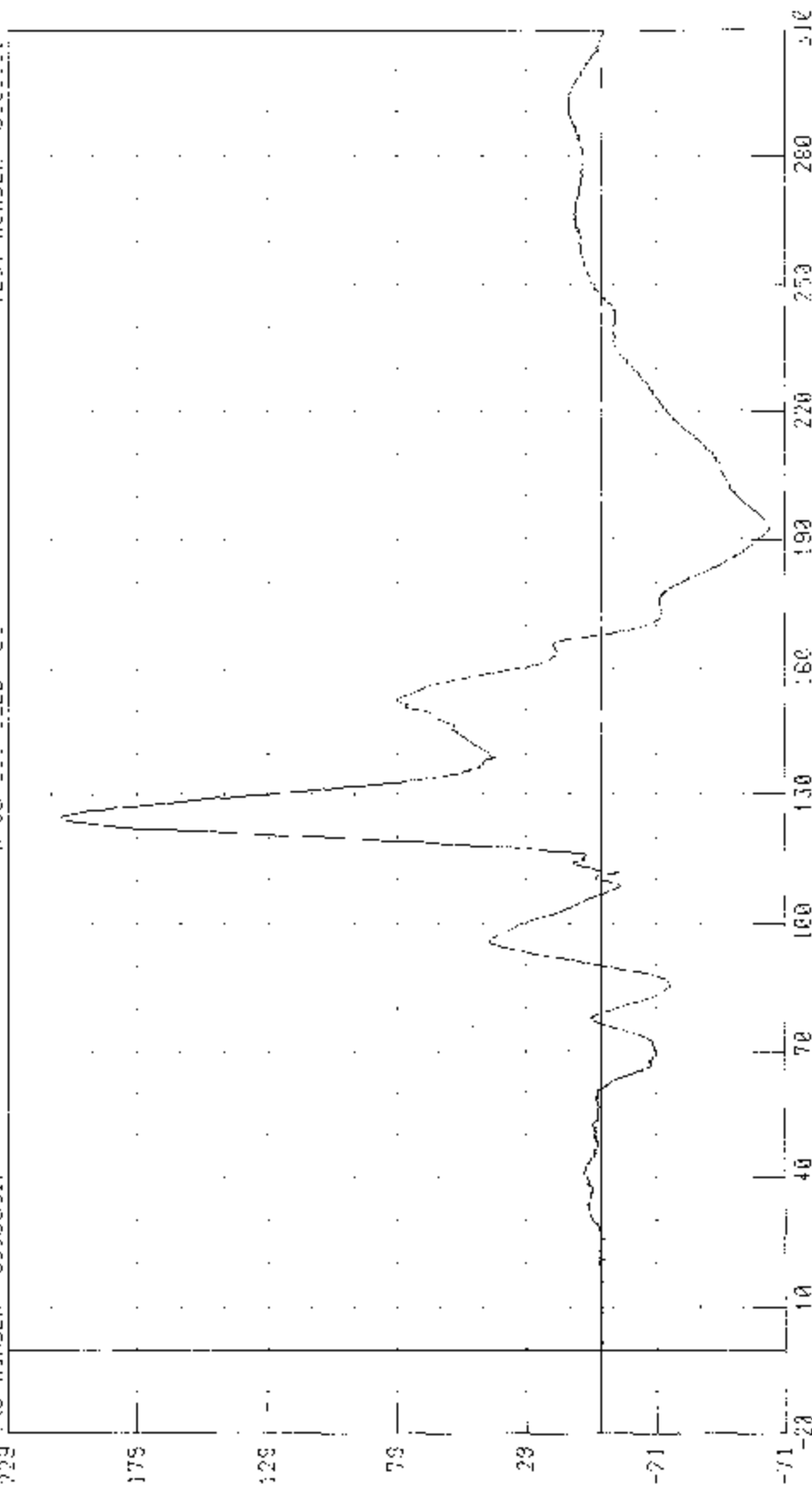
CHANNEL: NEK2F1 FILTER: CH CLASS: 1000

C35106 / 2003 TOYOTA INCONIA  
 DRIVER NECK MOMENT ABOUT X AXIS  
 -HVSS 229 BLEED TEST-

TEST NUMBER S030501

TRC NUMBER S030501F

229



TIME (MS)

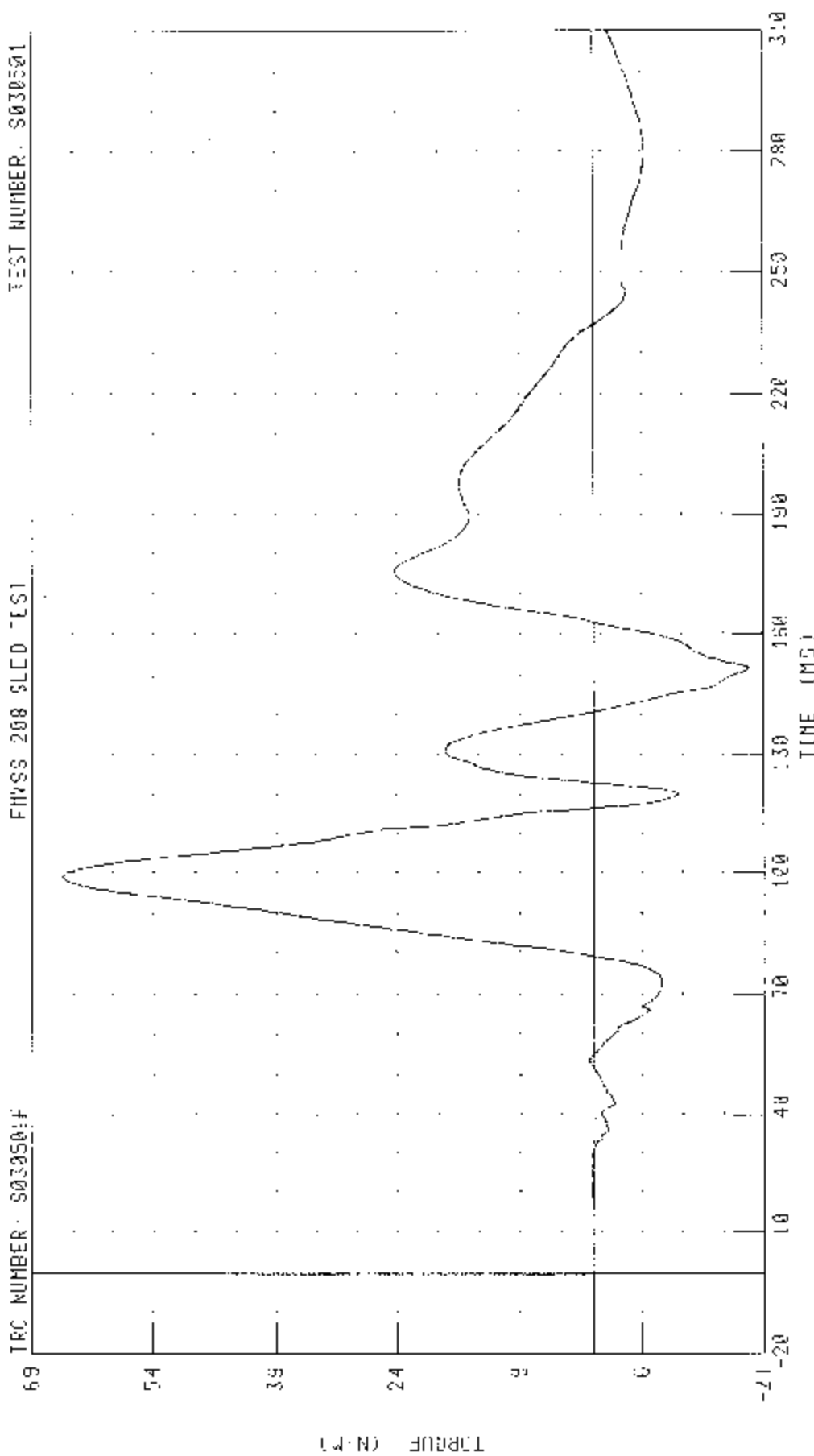
PEAK DATA 00 02 N N 0 125 28 15; -0 51 N N 0 192 55 15

CHANNEL NEXX01 FILTER CH 0.055 600

C35105 / 2003 TOYOTA TACOMA  
 DRIVER NECK NONFAT ABOUT Y AXIS

TEST NUMBER: S030501

TRC NUMBER: S030501F

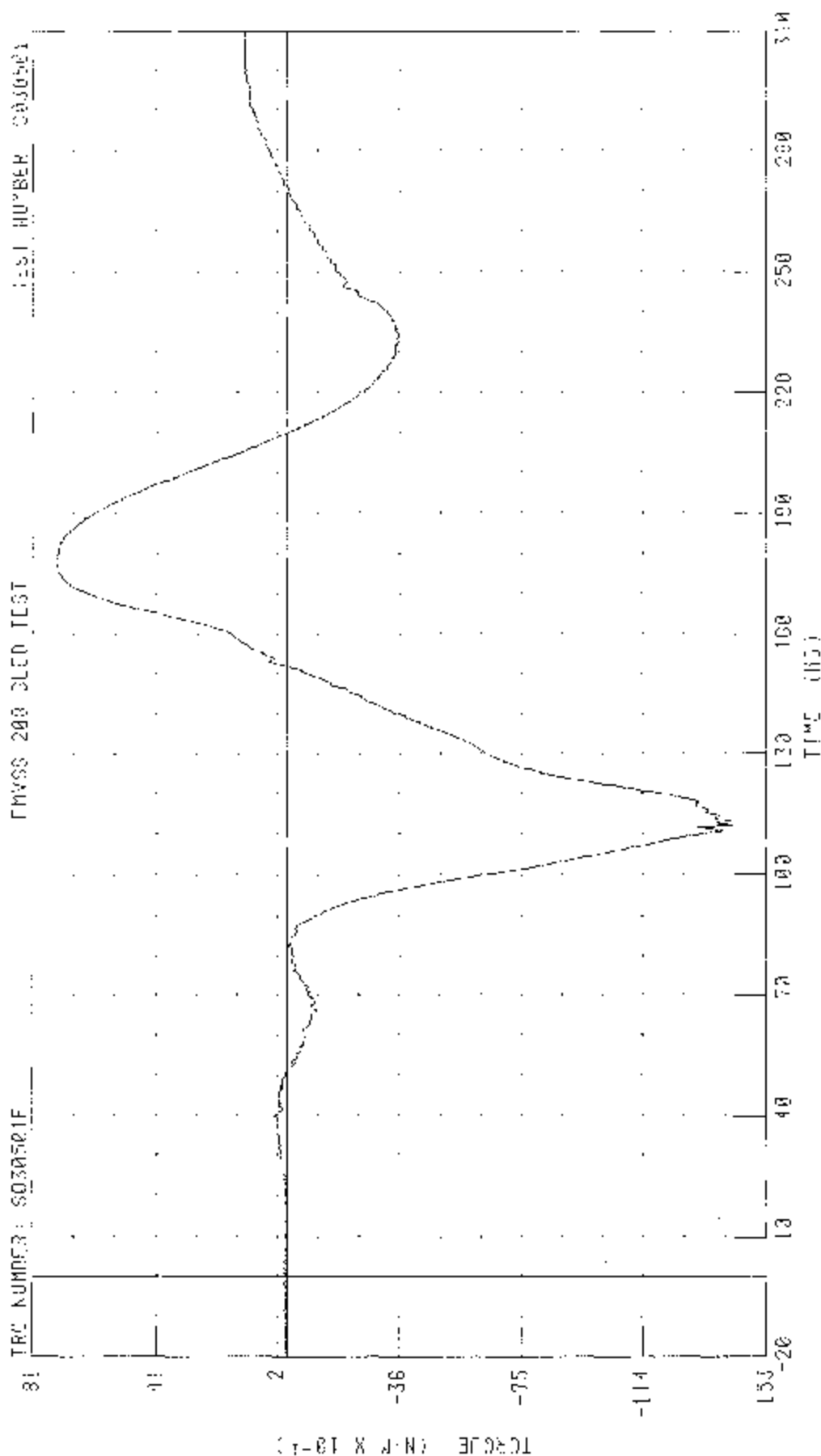


CHANNEL: NEK001 FILTER: C- CLOSS: 500

PEAK DATA: 55.17 N 10 99.24 MS: -10.31 N 10 152.10 MS



C15196 / 2023 TOYOTA TACOMA  
 DRIVER SEAT MOMENT ABOUT Z AXIS  
 PHYS 200 BLEED TEST



CHANNEL: NIK/NI FILTER: CH CLASS: 000

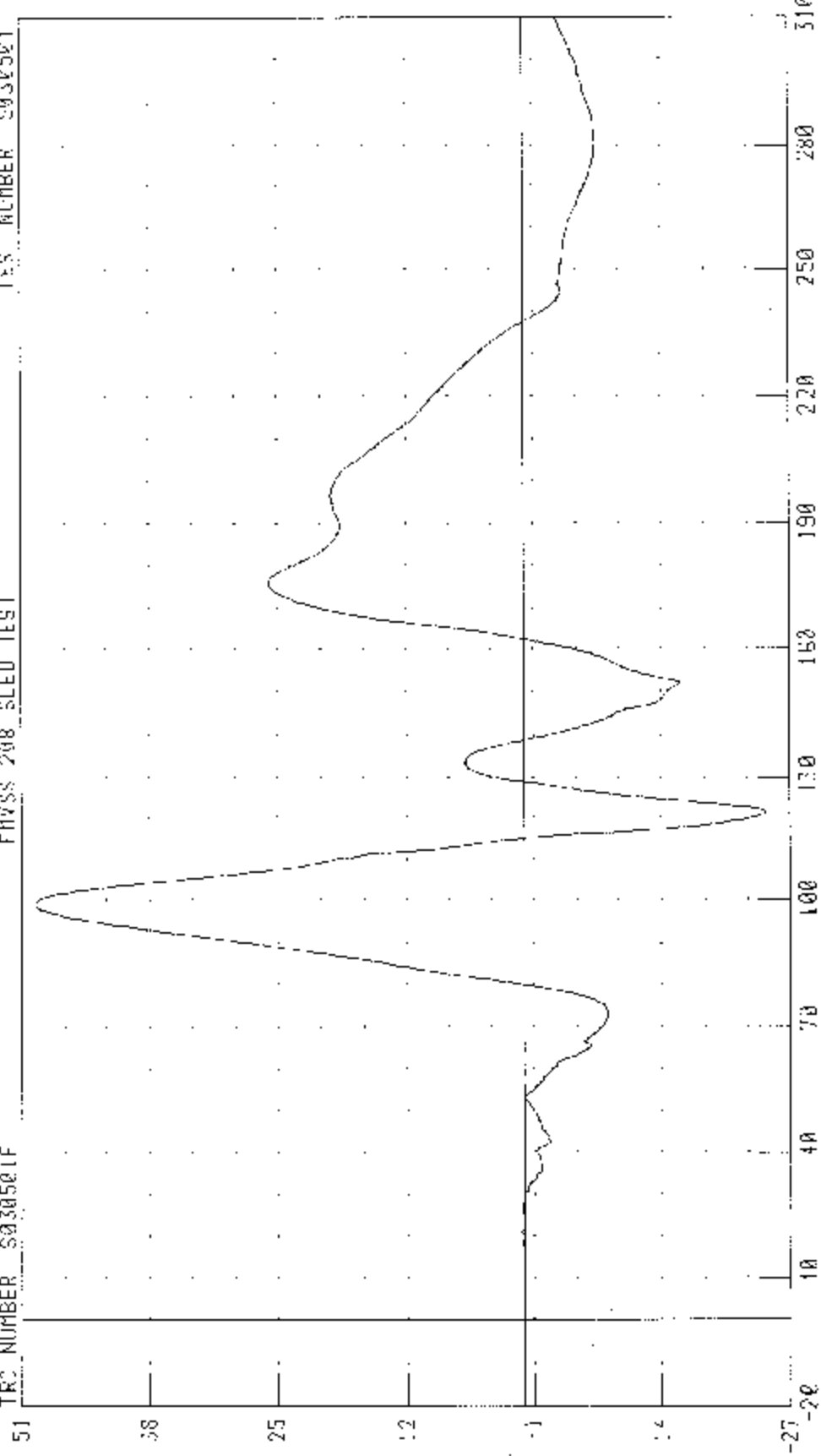
CJ5106 / 2003 TOYOTA TACOMA

DRIVER RECK MOMENT ABOUT Y AXIS OCCIPITAL CONDYLE

TRC NUMBER S030501F

TEST NUMBER S030501

TEST NUMBER S030501F



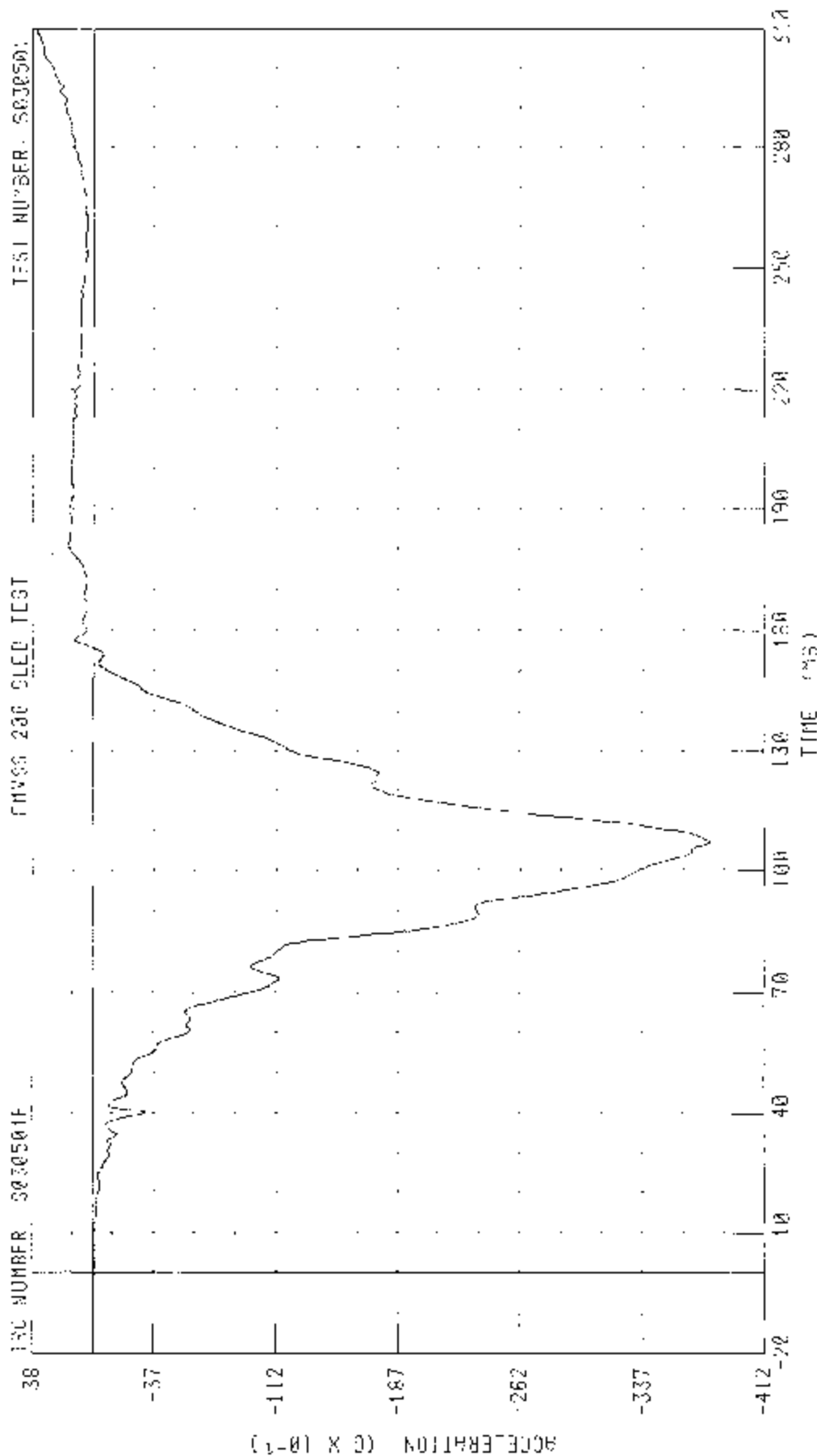
TIME (MS)

CHANNEL NEKOMI FILTER CH. CLASS 600

PEAK DATA 49.57 N H 0.39 20 MS -24.56 H 1.0 12 MS

TORQUE (N-M)

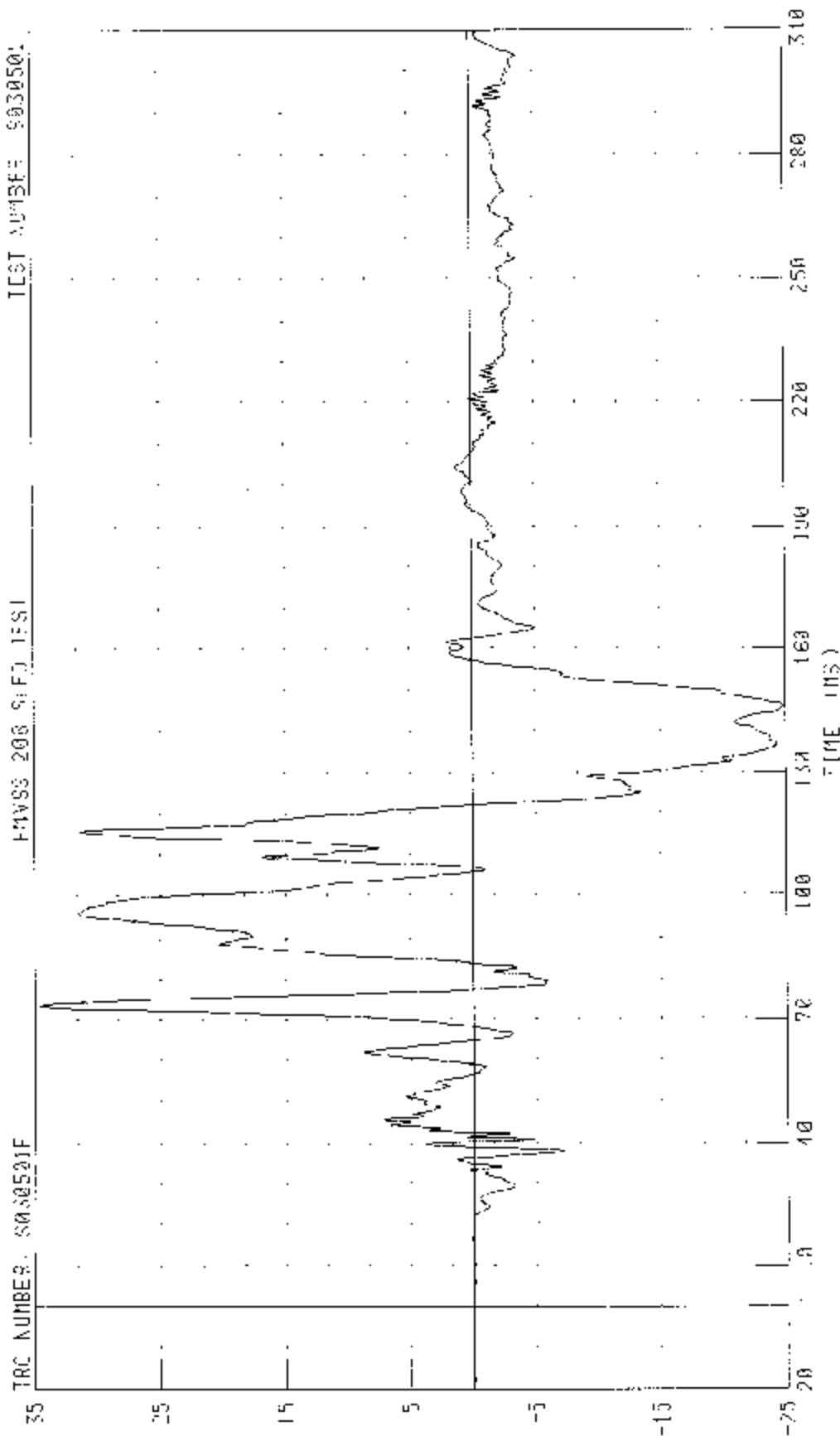
TEST NUMBER: 503250;



LOG: \$XCI 10X: \$D CHANNEL: 7

PLPK J070 3 36 G 310 W2 15, 07.31 G 3 307 20 M3

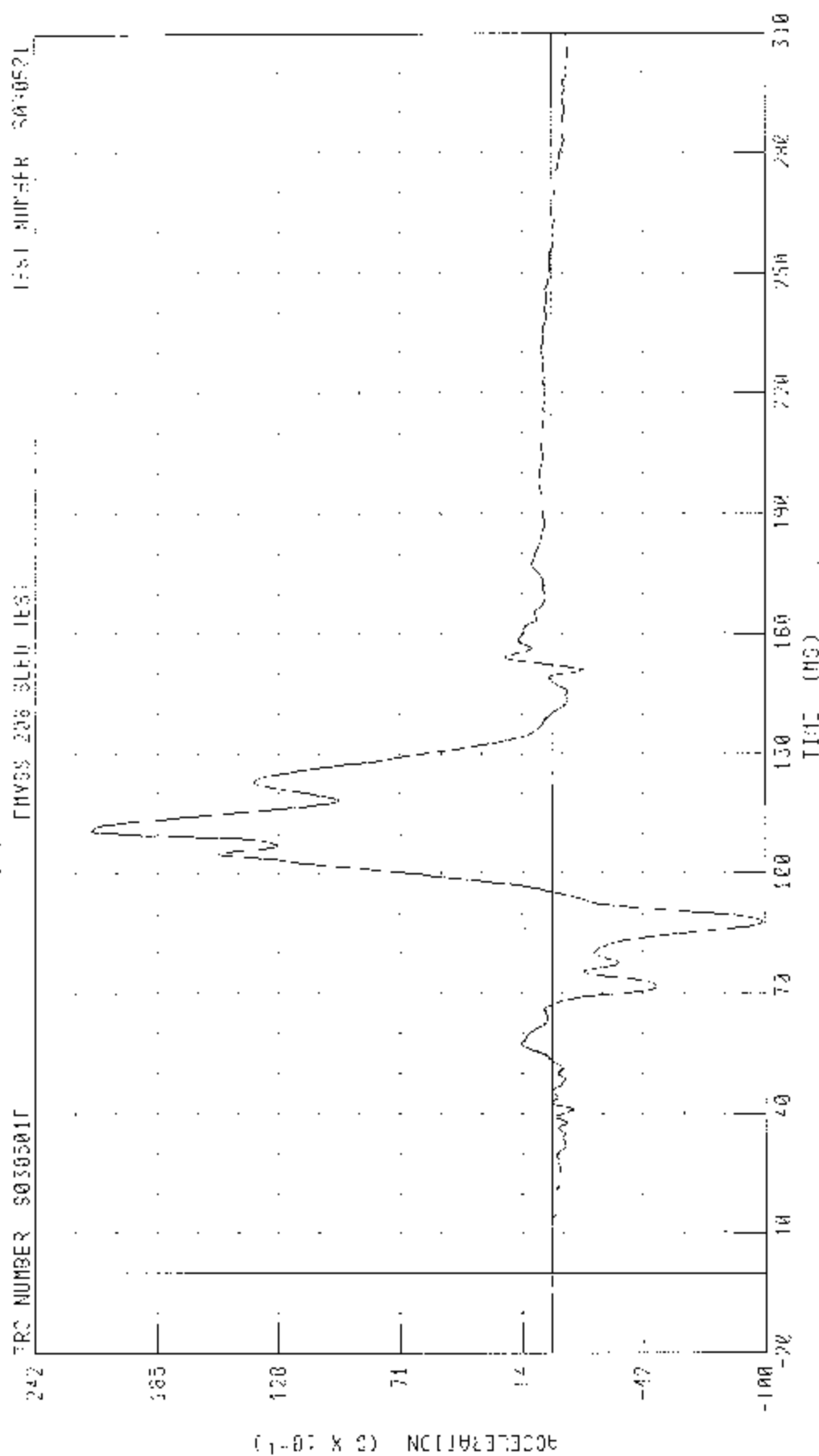
C35134 / 2003 TOYOTA TACOMA  
 DRIVER CHEST Y-AXIS ACCELERATION  
 FMVSS 208 Side Test



CHANNEL C5Y01 FILTER: CH. CLASS 192

PEAK DATA 3 46 0 0 73 68 MS, -2.48 G @ 145 24 MS

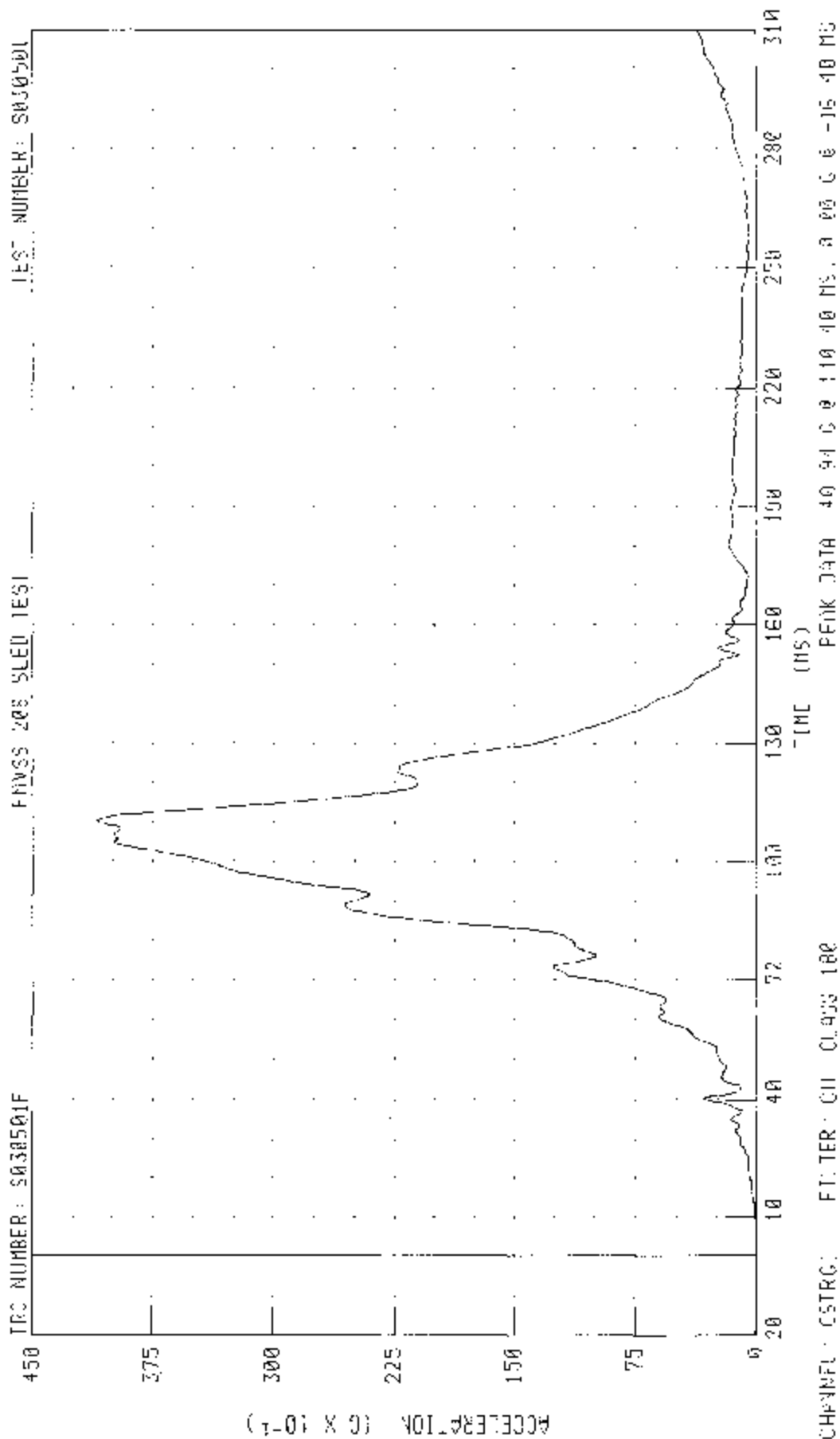
035106 / 2003 TOYOTA Tacoma  
 DRIVER CHSE7 7-AXIS ACCELERATION  
 PHYS 238 BLEND TEST



CHANNEL CSTZC1 FILTER: CH CLASS 16W

PEAK DATA 21.54 S @ 11.12 MS: -9.86 G @ 98.00 MS

035106 / 2003 TOYOTA TACUMA  
DRIVER CHEST RESULTANT ACCELERATION



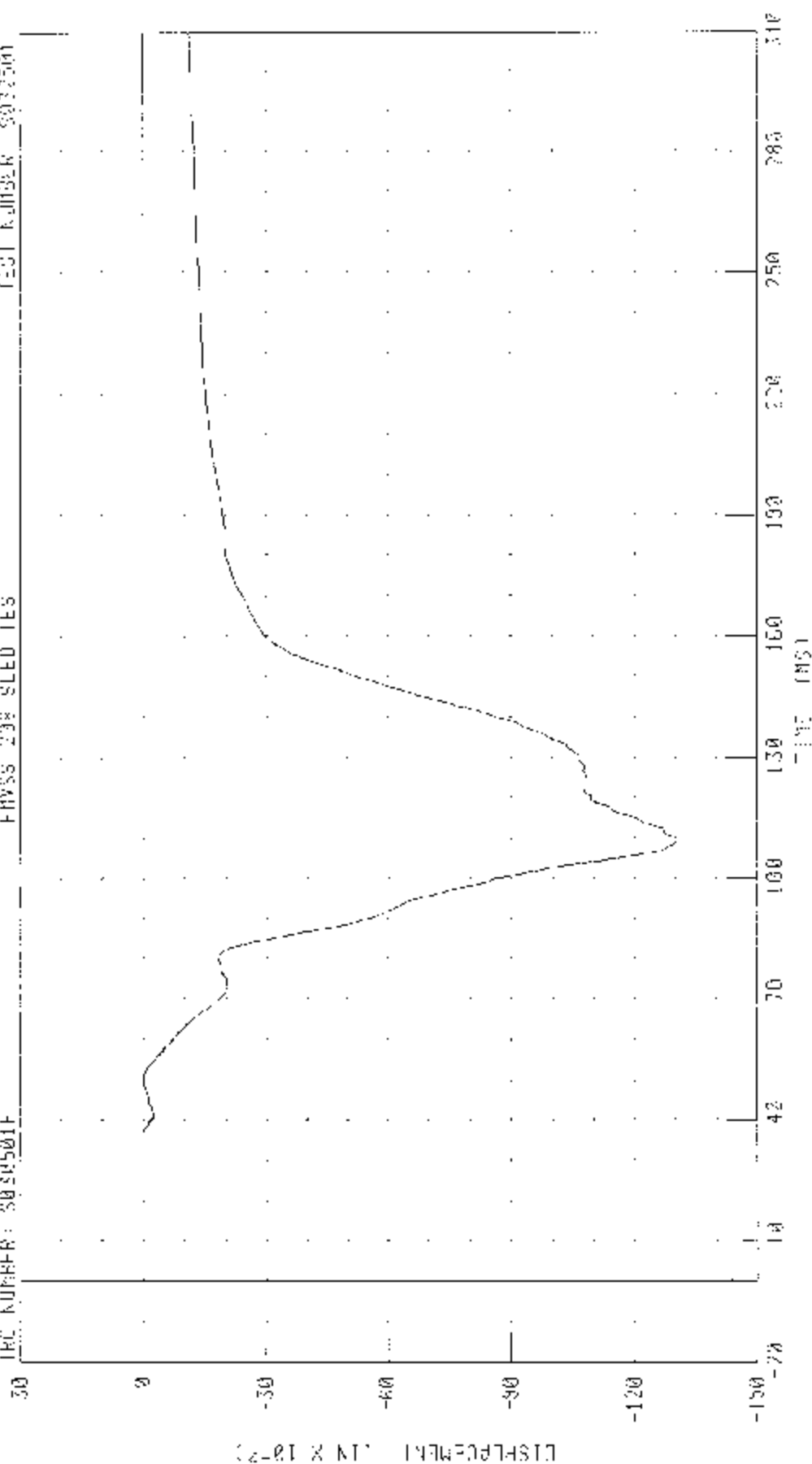
C15106 / 2003 TOYOTA ACOMP

DRIVER CHESI DEFLEC UN

PHYS 238 SLED TBS

TRC NUMBER: S030501F

TEST NUMBER: S032500



CHANNEL C51X01 FILTER CH. CLASH DNO

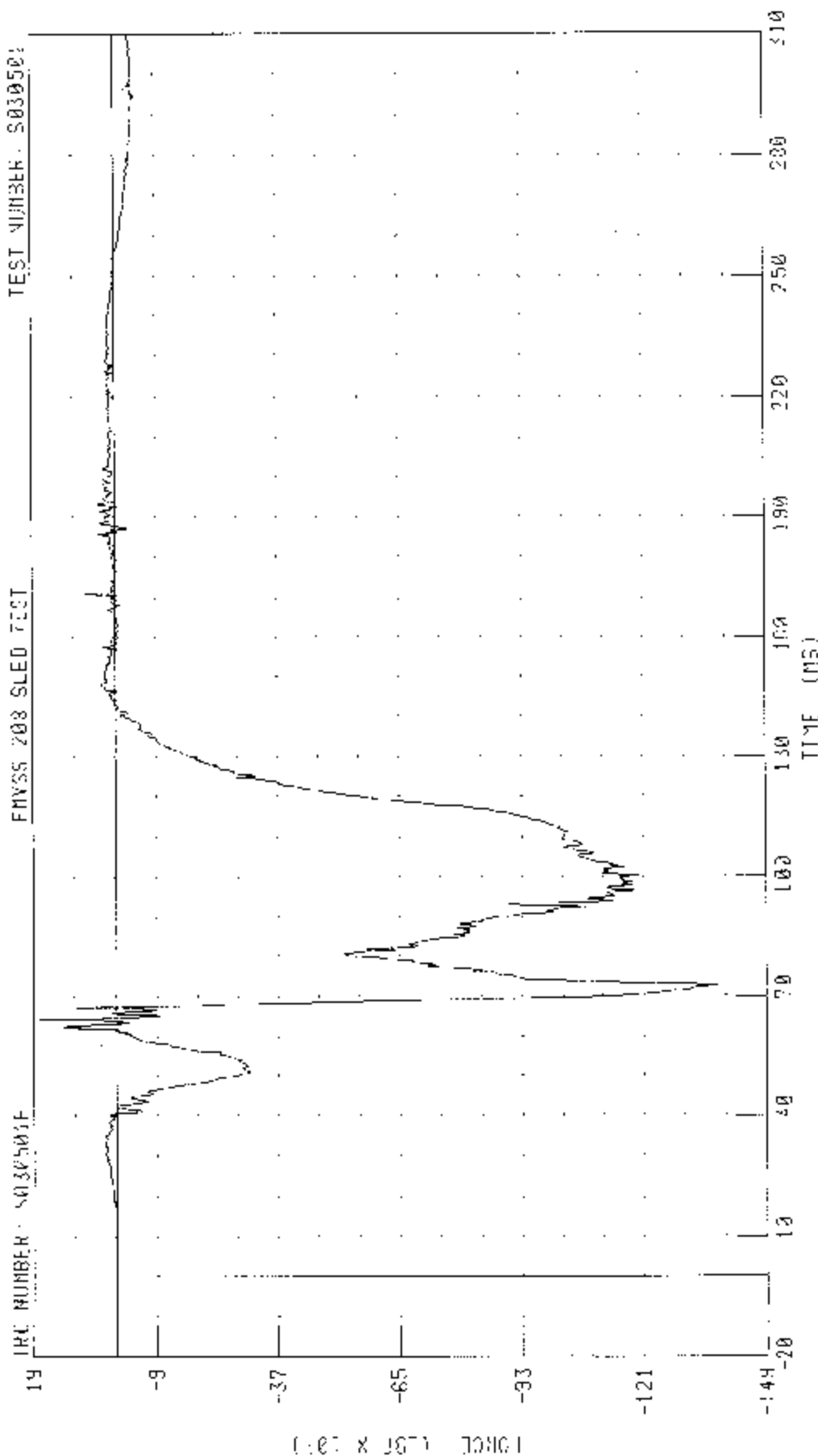
PSNR P/Tot: 2.00 IN W 77.80 MS: -1.30 IN 0 129.76 MS

C35106 / 2003 TOYOTA TACOMA

DRIVER LEFT ARMOR FORCE

FMVSS 208 SLED TEST

TEST NUMBER: S030501





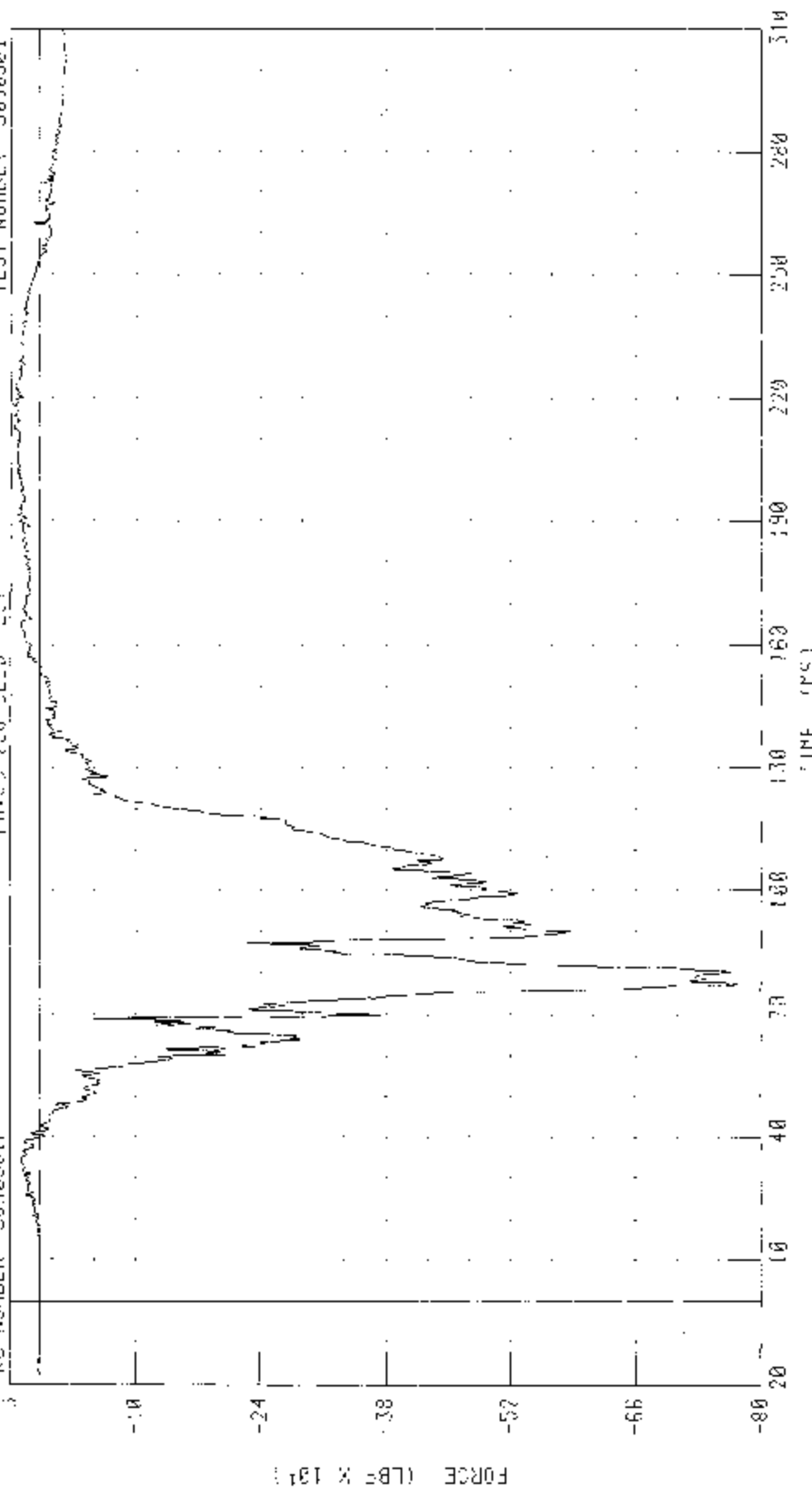
C35126 / 2003 TOYOTA TACOMA

DRIVER RIGHT FEMUR FORCE

FMVS 200 SLED TEST

TRC NUMBER S030501F

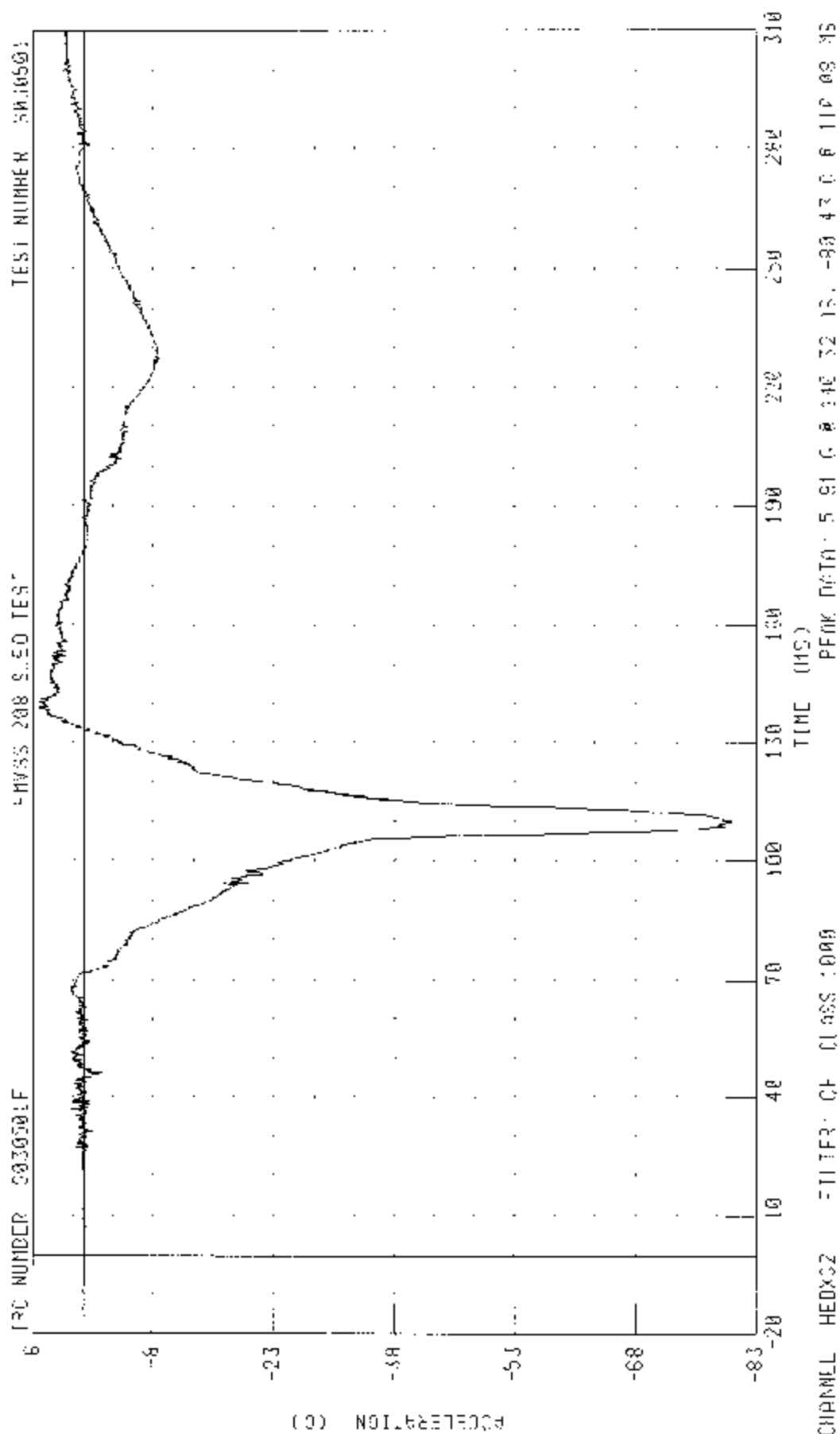
TEST NUMBER S030501



CHANNEL RIM2F1 FILTER CH. CLASS 500

PEAK DATA: 29.90 LBF @ 216.40 MS; -79.2 LBF @ 77.72 MS

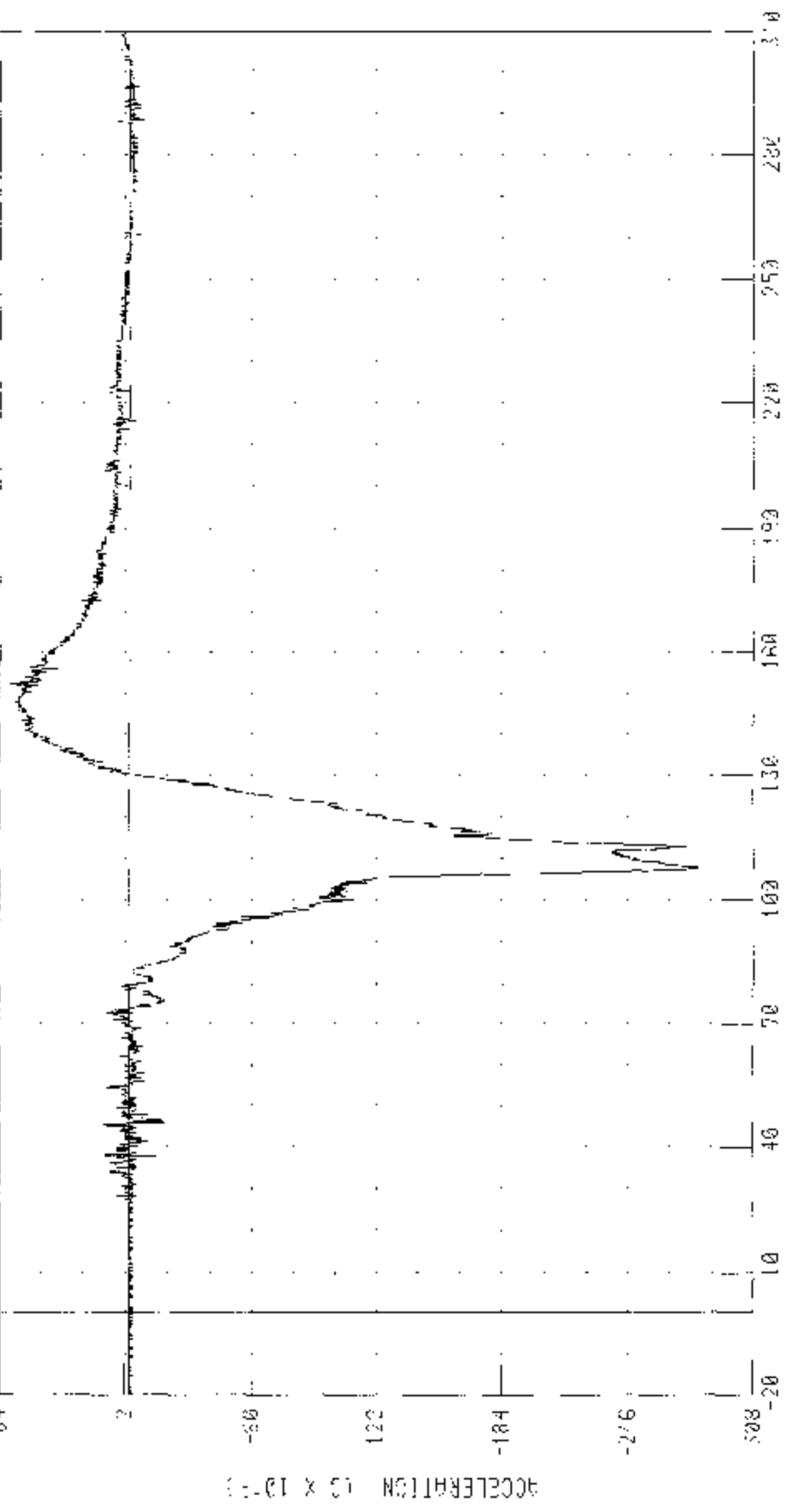
C35105 / 2003 TOYOTA TACOMA  
RIGHT FRONT PASSENGER HEAD Y-AXIS ACCELERATION



035136 / 2003 TOYOTA ACCORD  
 RIGHT FRONT PASSENGER HEAD Y-AXIS ACCELERATION  
 P1724 200 SPLIT TEST

TEST NUMBER 0030501

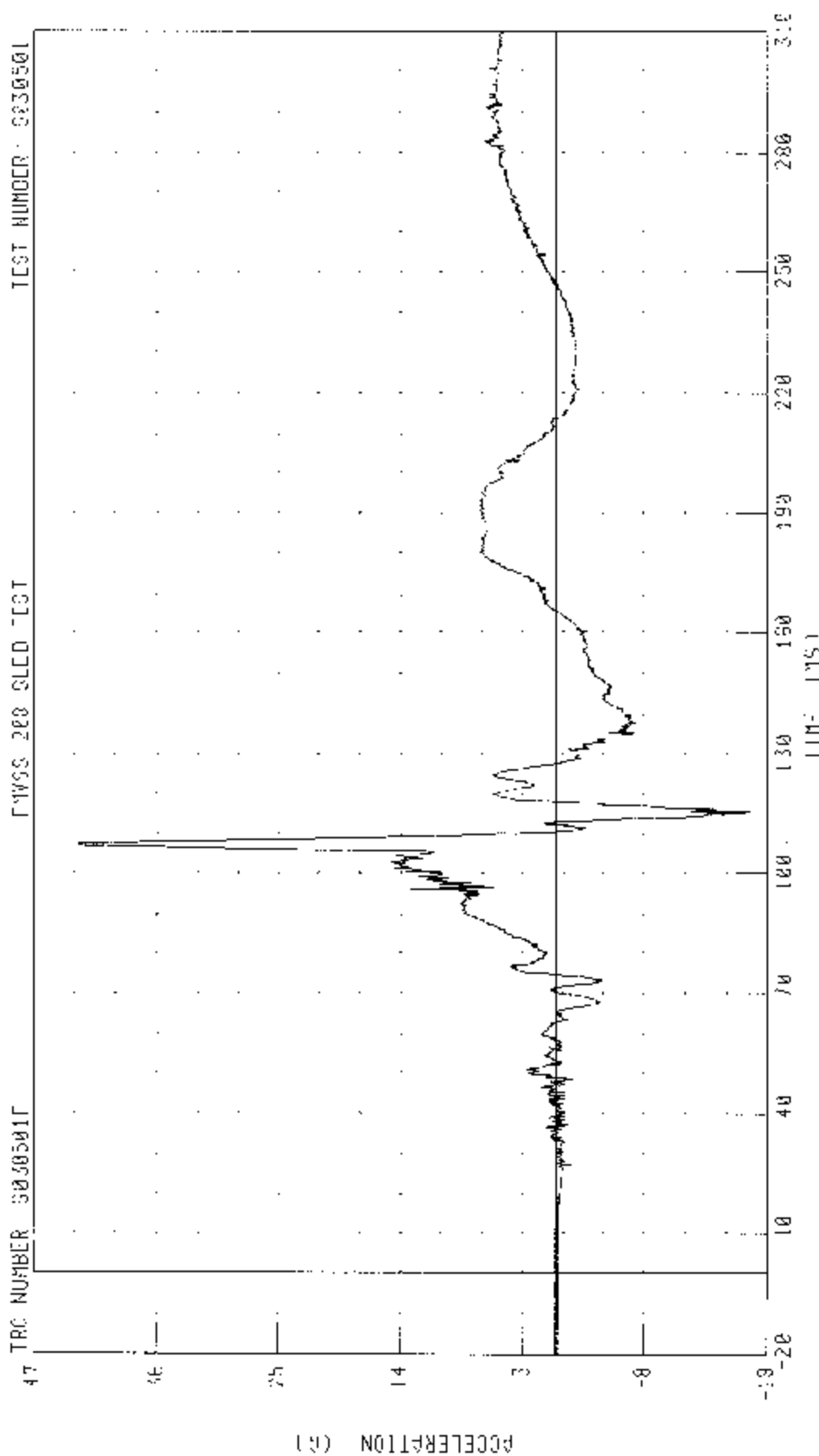
TRC NUMBER 0030501F



CHANNEL: HDYG2 COLLIER CH CLASS 1002

PEAK DATA 5.38 G @ 152.61 MS, -28.88 G @ 107.68 MS

C15126 / 2003 TOYOTA IACOMA  
RIGHT FRONT PASSENGER HEAD Z-AXIS ACCELERATION



CHANNEL: HEDZG2 FILTER: CH CLASS: 1000

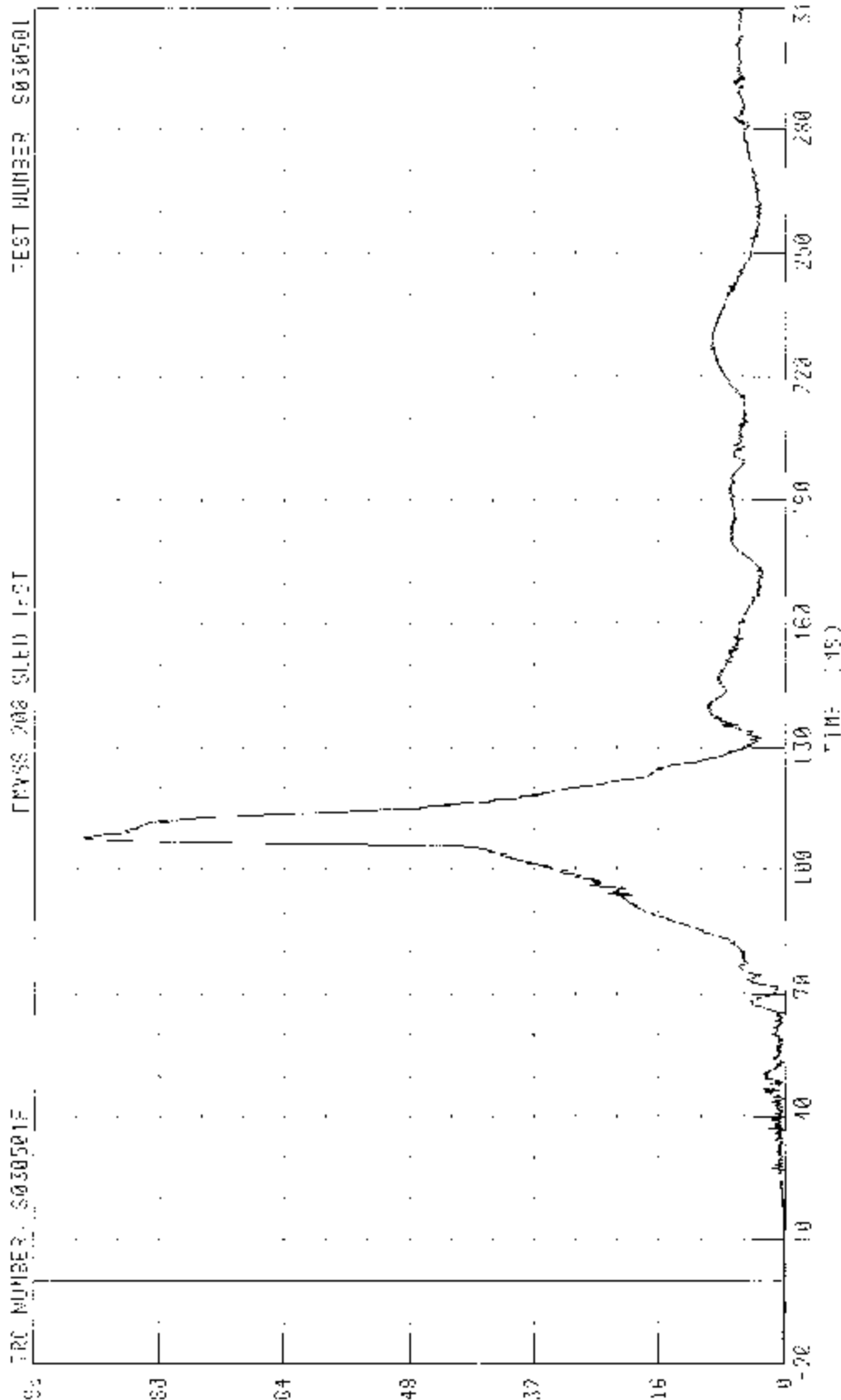
PEAK DATA: 47.89 G @ 127.36 MS; -17.57 G @ 135.84 MS

035100 / 2001 T0014 T00004

RIGHT FRONT PASSENGER HEAD RESULTANT ACCELERATION

TEST NUMBER S030501F

TEST NUMBER S030501



CHANNEL: HEDRC2 FILTER: CH CLASS: 0000

PEAK DATA: 00.73 G @ 100.24 MS, 0.07 G @ -20.00 MS

ACCELERATION (G)

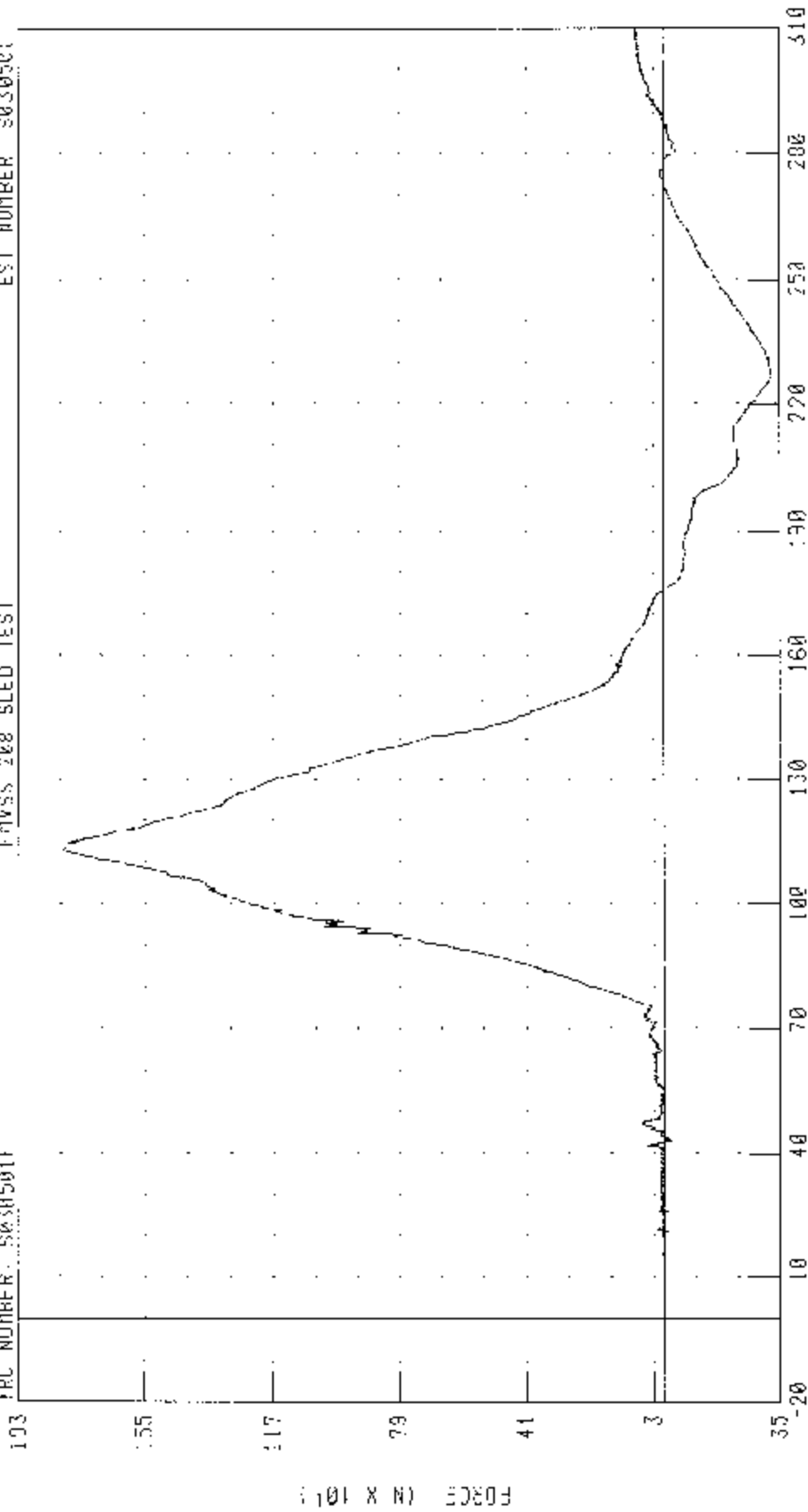
035100 / 2003 TOYOTA TACOMA

RIGHT FRONT PASSENGER NECK X-AXIS SHEAR FORCE

FMVSS 200 SLED TEST

TEST NUMBER 8030501

TEST NUMBER 8030501



TIME (MS)

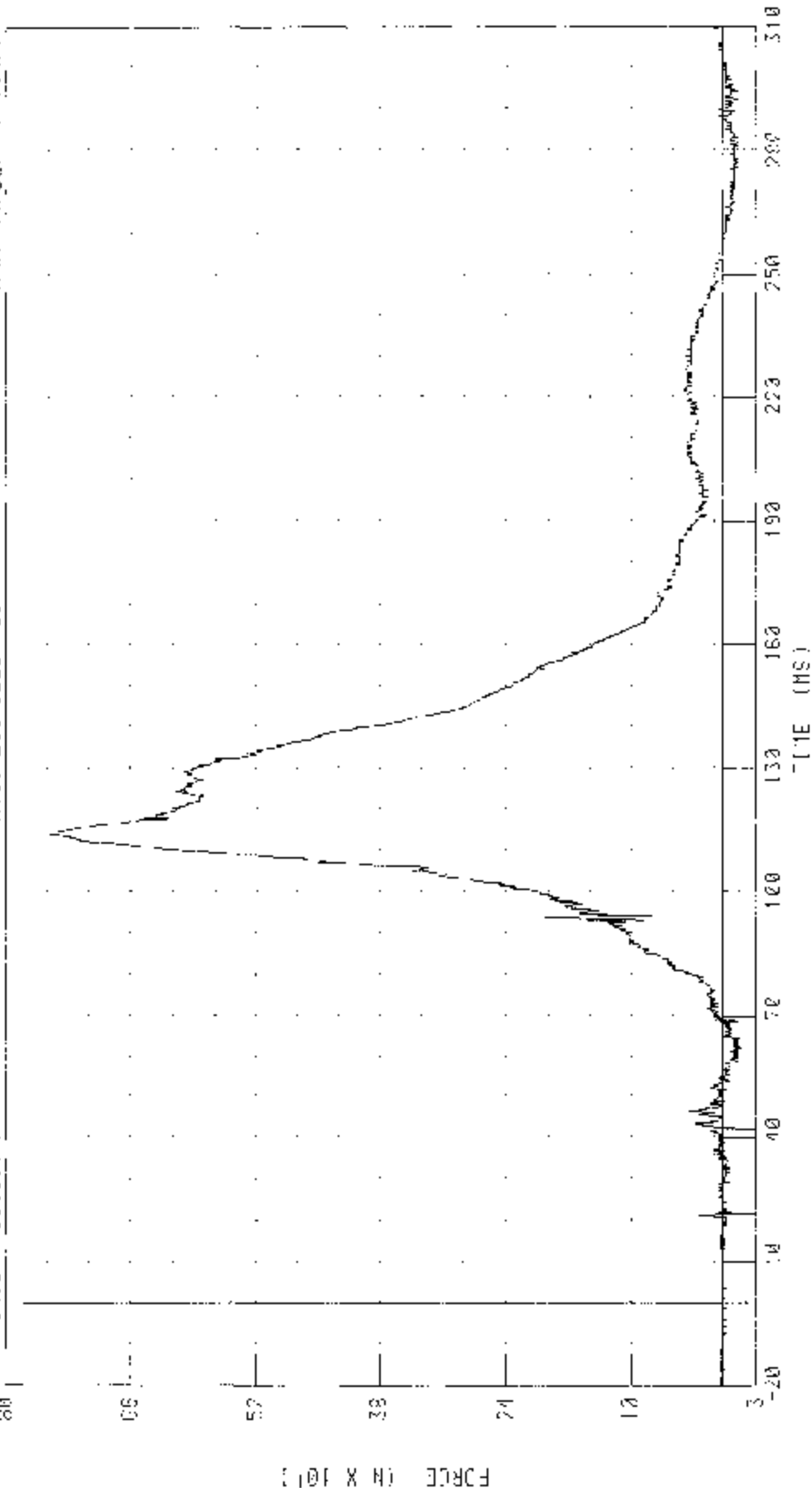
CHANNEL: NEKXF2 FILTER: CH CLASS: 100G

PEAK DATA: 1800 35 H 2 113 44 MS: -325 59 N 0 226 32 MS

0351AC / 2003 TOYOTA TACOMA  
 RIGHT FRONT PASSENGER NECK X-AXIS SHEAR FORCE  
 CHVSS 200 SLED TEST

IRC NUMBER: 0030501F

IFSI NUMBER: 0030501



CH04RH1 KEY42 FILTER C- 0.0000 1000

PEAK DATA: 752.77 N @ 110.92 MS, -54.54 Hz @ 21.44 ms

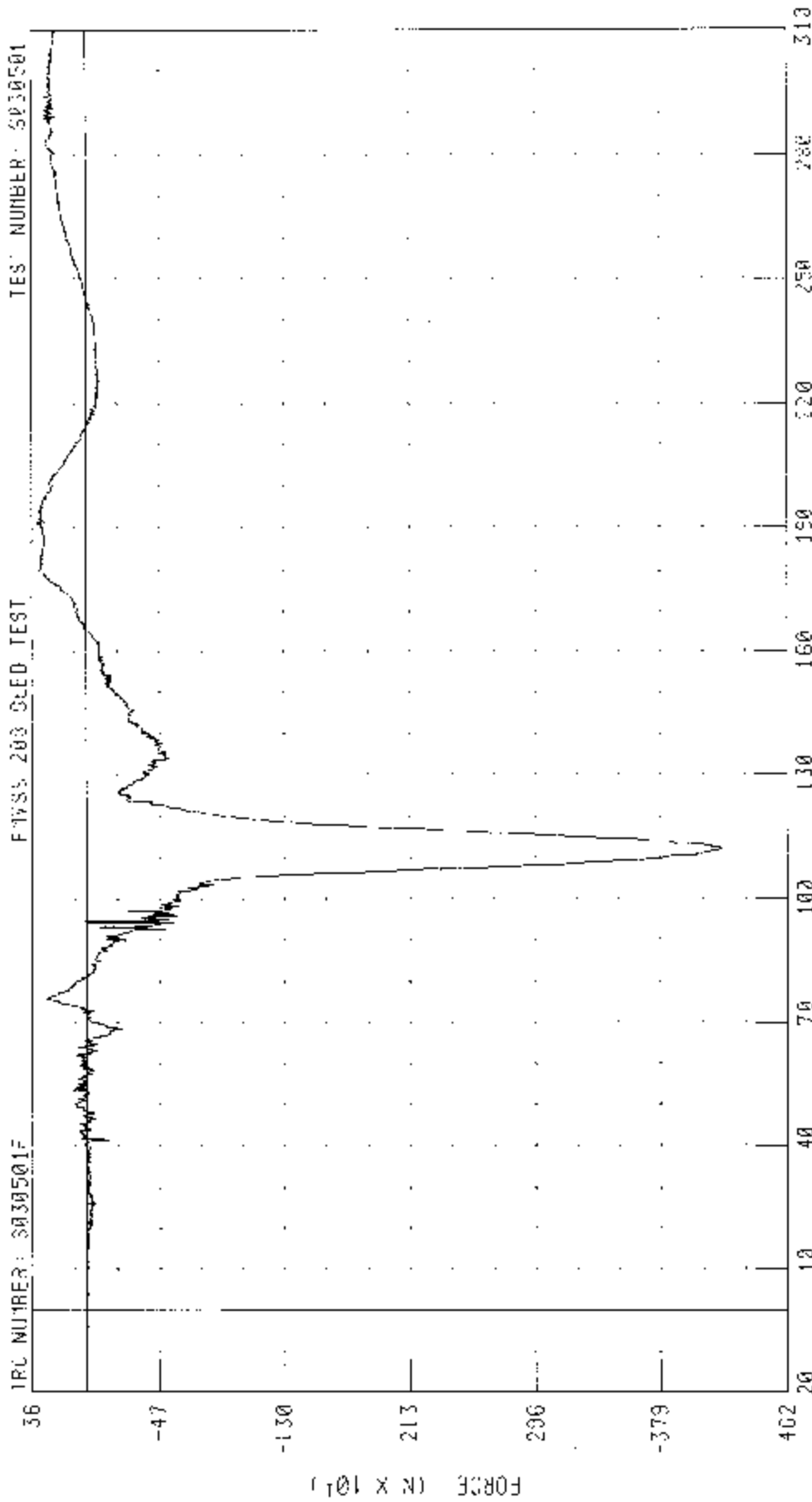
235126 / 2023 TOYOTA TACOMA

RIGHT FRONT PASSENGER NECK Z-AXIS AXIAL FORCE

IPC NUMBER: S030501F

F1VSS 200 GLED TEST

TEST NUMBER: S030501



IMP (MS):

CHANNEL: NEKZF7 FILTER: CH CLASS: 1000

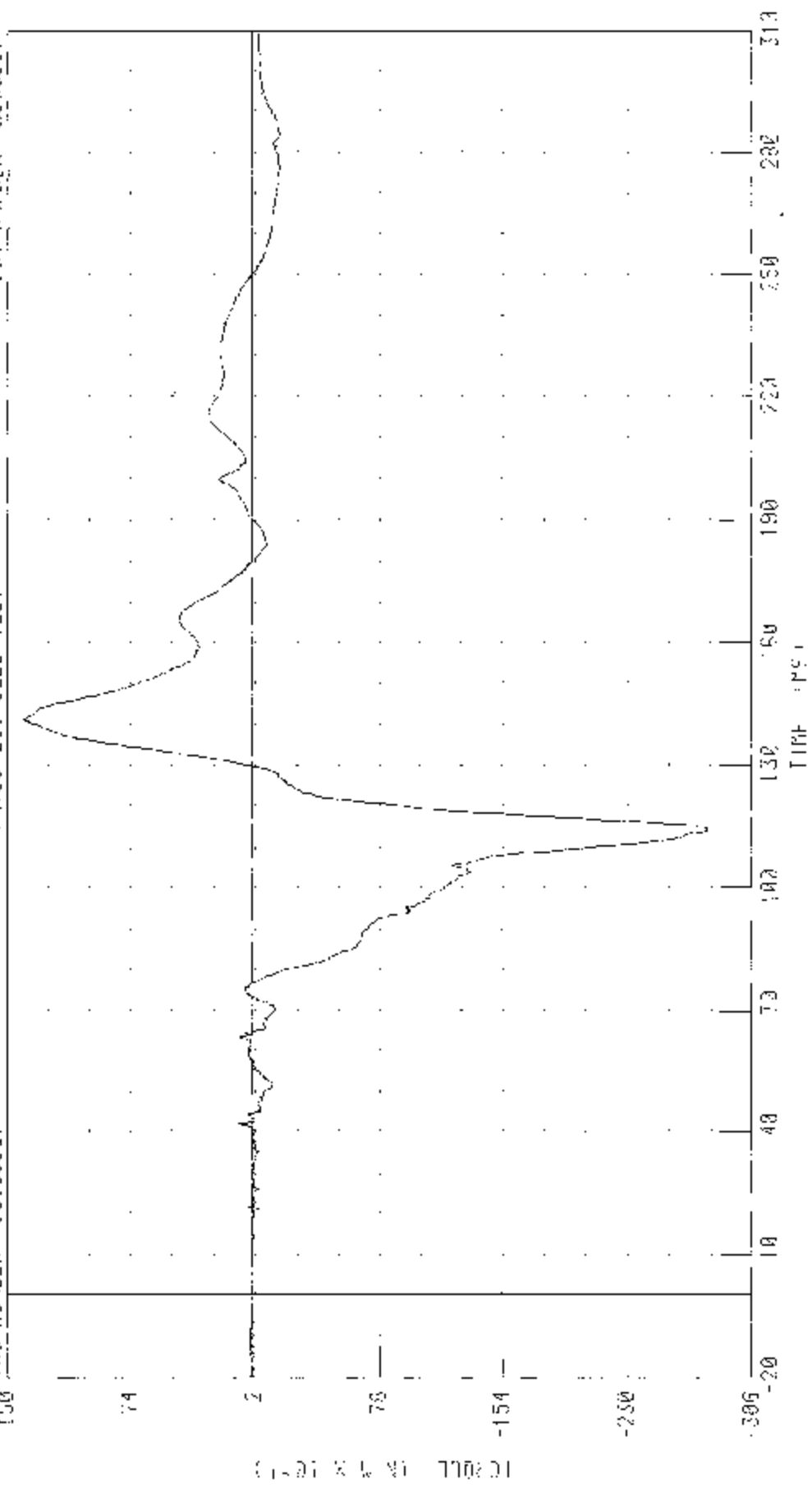
PEAK DATA: 322 SE N @ 101.20 MS, -4194 97 N @ 117 05 MS



035106 / 2003 TOYOTA TACOMA  
 RIGHT FRONT PASSENGER HICK NODENT ABOUT X AXIS  
 FIVES 228 BLEED TEST

IPC NUMBER 0030501F

TEST NUMBER: 00000001



TIME (min)

CHANNEL: HICKNODENT 10 ILR CH CLASS: 0000

FLAK DIPA 13.50 H N B 141 65 10, 27 80 H N B 144 10 10

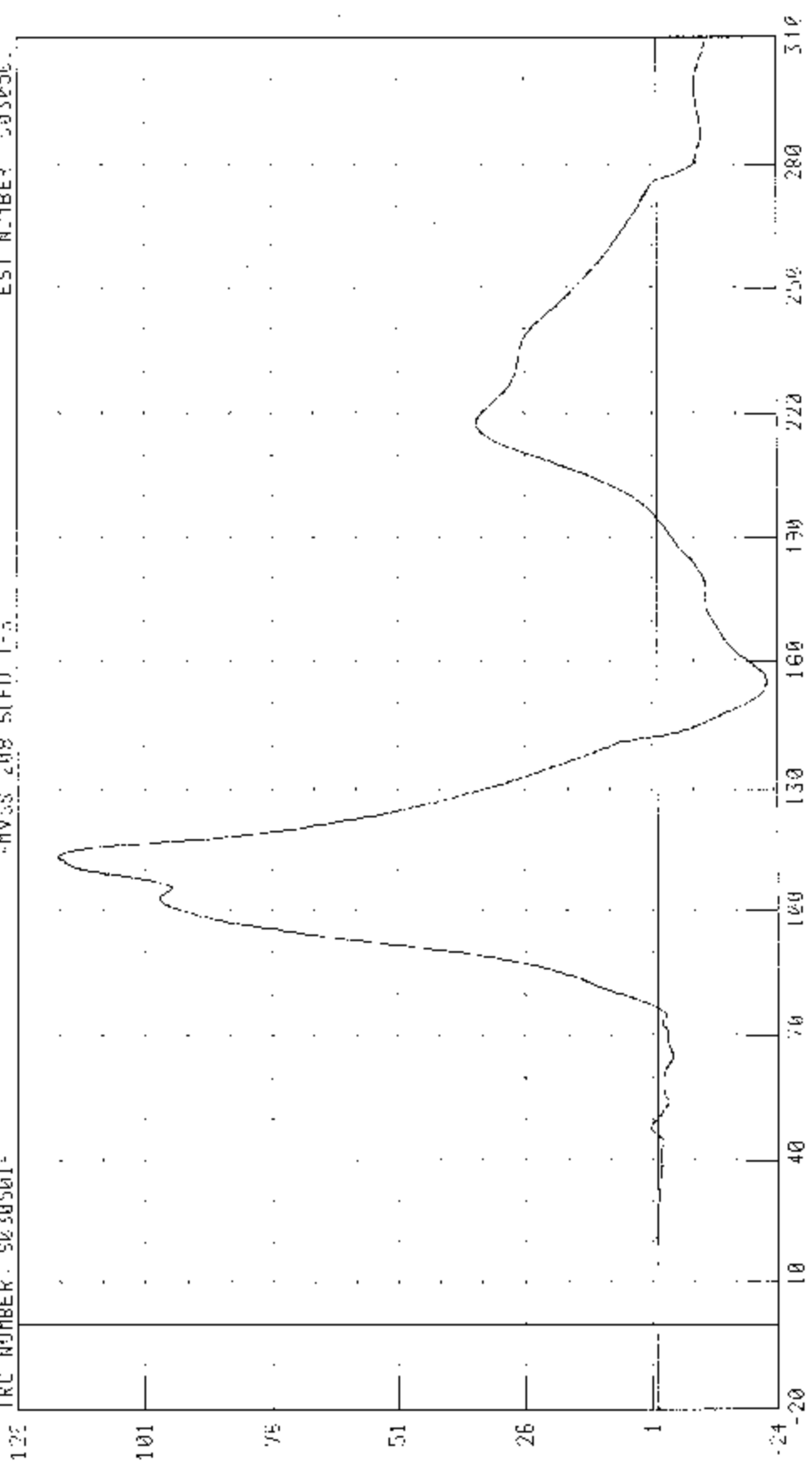
C35106 / 2003 TOYOTA TACOMA

RIGHT FRONT PASSENGER NECK MOMENT ABOUT Y AXIS

TRC NUMBER: 5030501

ESI NUMBER: 0030501

EVGS 200 SUSD TEST



TIME (MS)

CHARACTER NEKYM? FILTER CH. CASE C00

PEAK DATA: 113.00 N M 6 113.36 MS; -22.00 N M 8 155.44 MS

TORQUE (N-M)

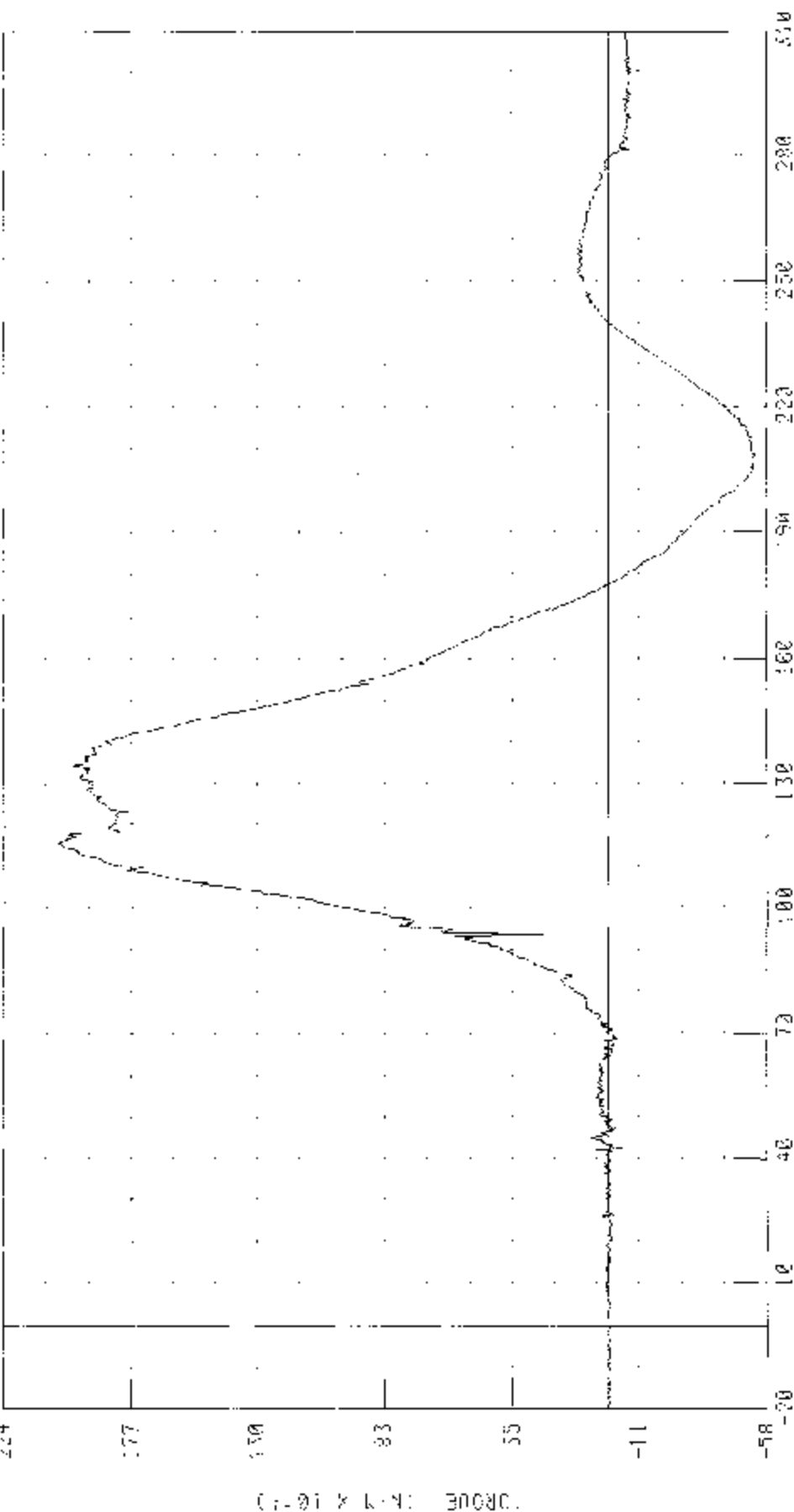
035136 / 2003 10V010 -403MP

RIGHT FRONT PASSENGER NECK MOMENT ABOUT Z AXIS

FWSS 208 SLED TEST

PC NUMBER 8030501F

IFS NUMBER 8030501



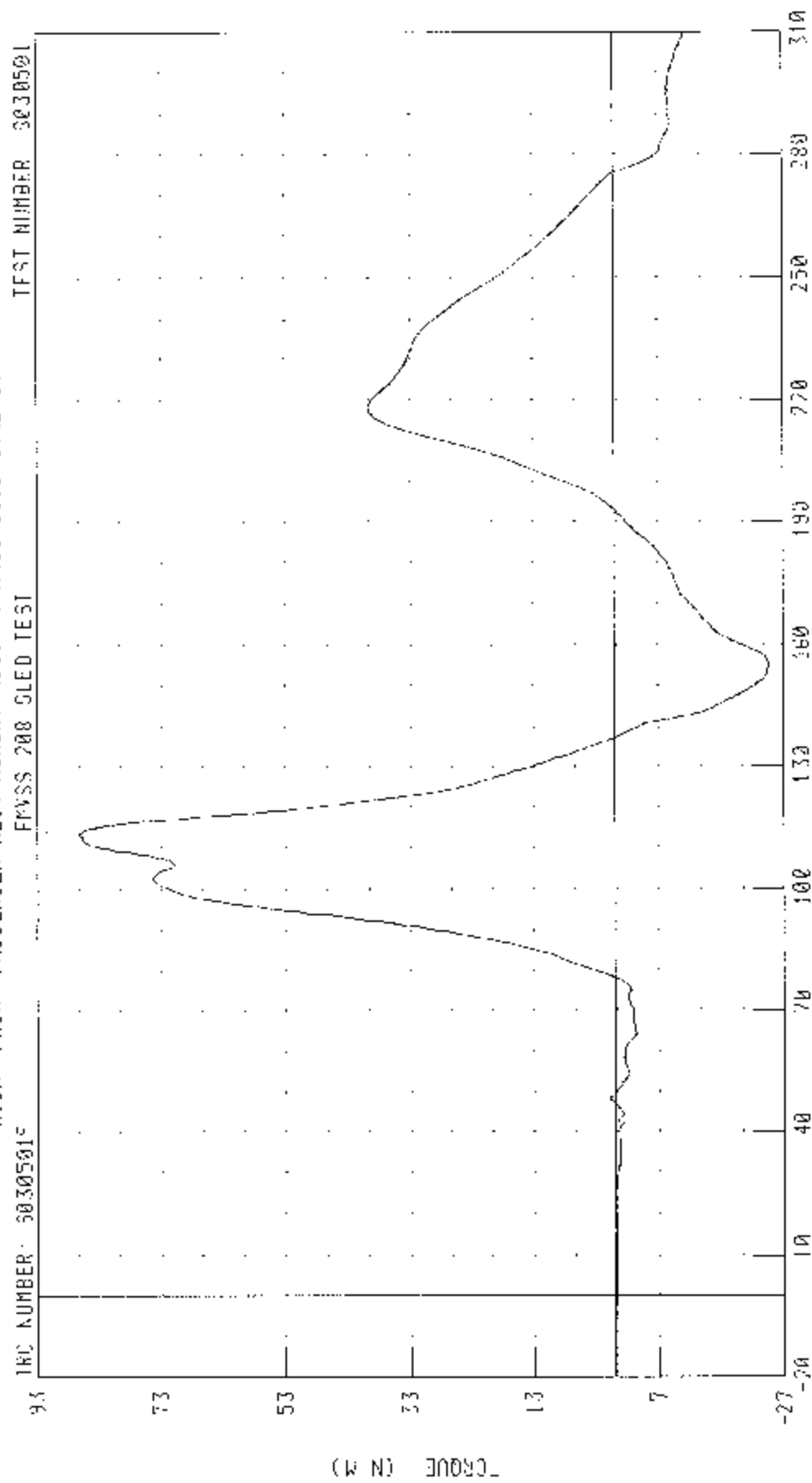
TIME (MS)

C-AXREL NFKZM2 FILTER: CH 11055 600

PLK DATA 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310

C35105 / 2005 1020A 1ACUMA

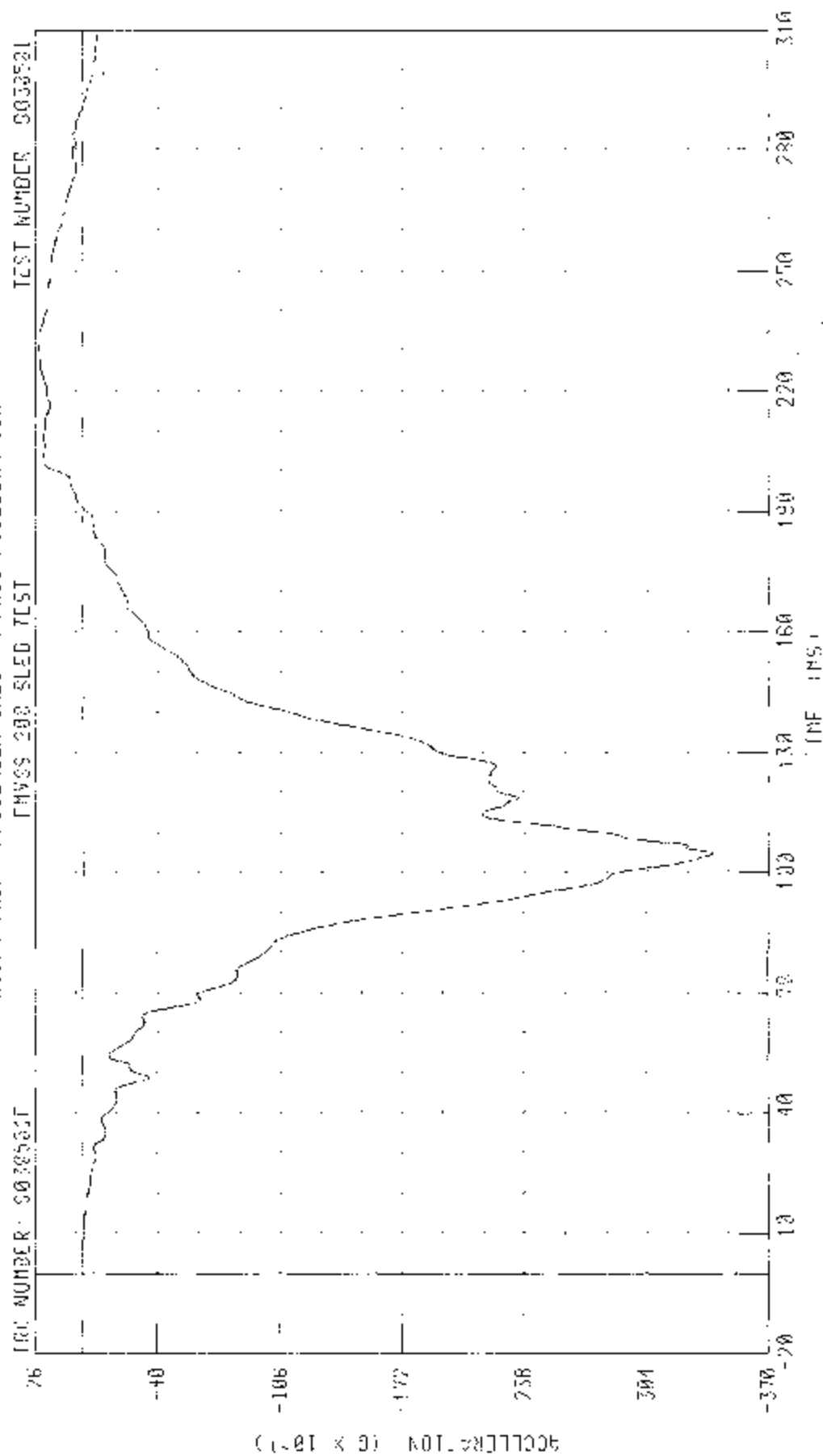
RIGHT FRONT PASSENGER NECK MOMENT ABOUT Y AXIS OCCUPANTAL CONDY, F



CHANNEL: NEK02 FILTR: CP, CLASS 600

CLAK ON 00 25 H 00 13 12 MS, -24.70 V 0 155 44 MS

035100 / 2003 TOYOTA ACC10  
 RIGHT FRONT PASSENGER CHEST X-AXIS ACCELERATION  
 PHYS 200 SLED TEST

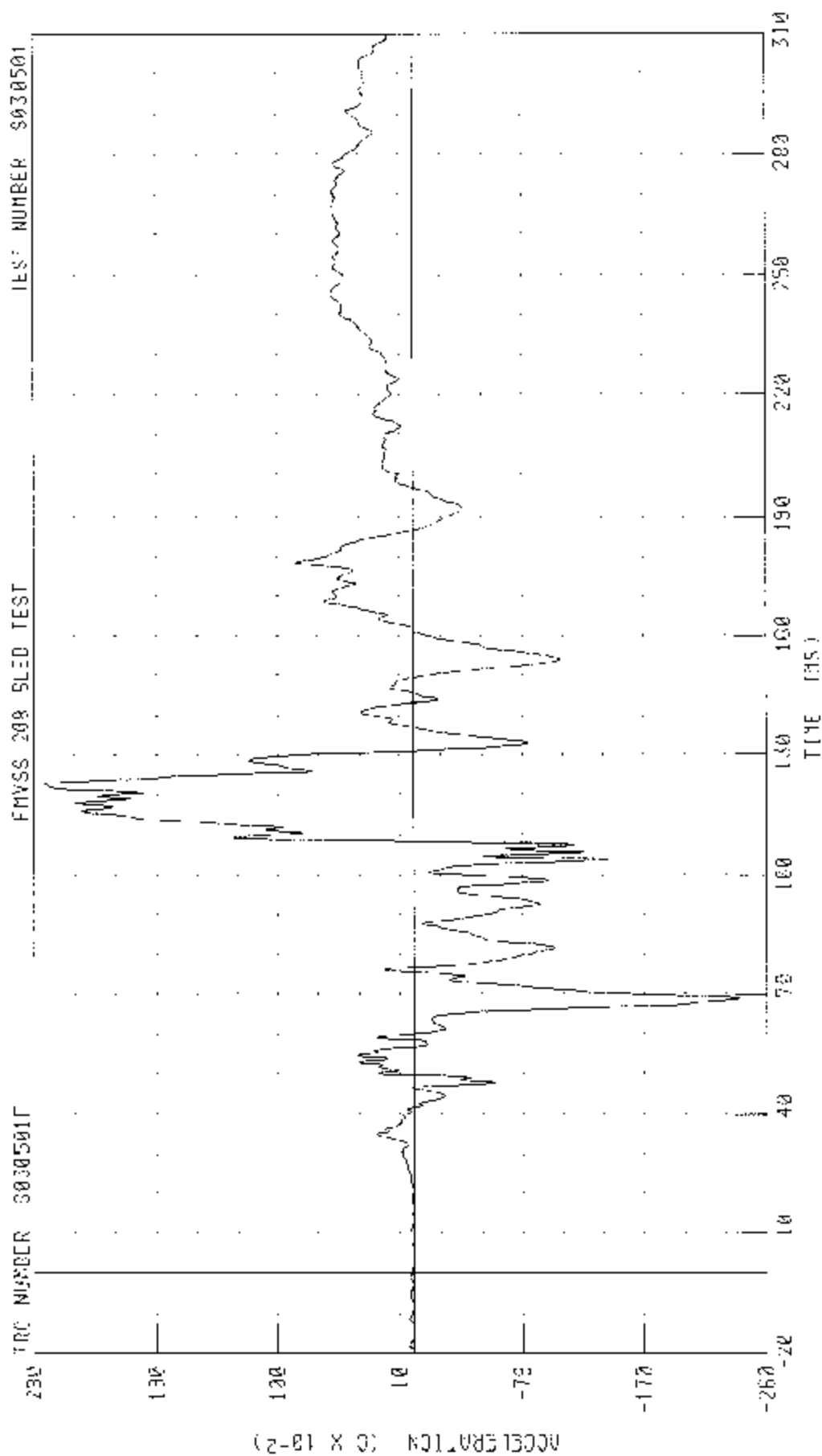


CHANNEL: C01X02 FILTER: 01 CLASS 130

PEAK DATA 1 42 3 3 250.03 MS. 34 21 0 8 104 72 PG

C35106 / 2003 TOYOTA TACOMA

RIGHT FRONT PASSENGER CHEST Y AXIS ACCELERATION



CHANNEL C5TY02 FTL IFR CH CLASS 180

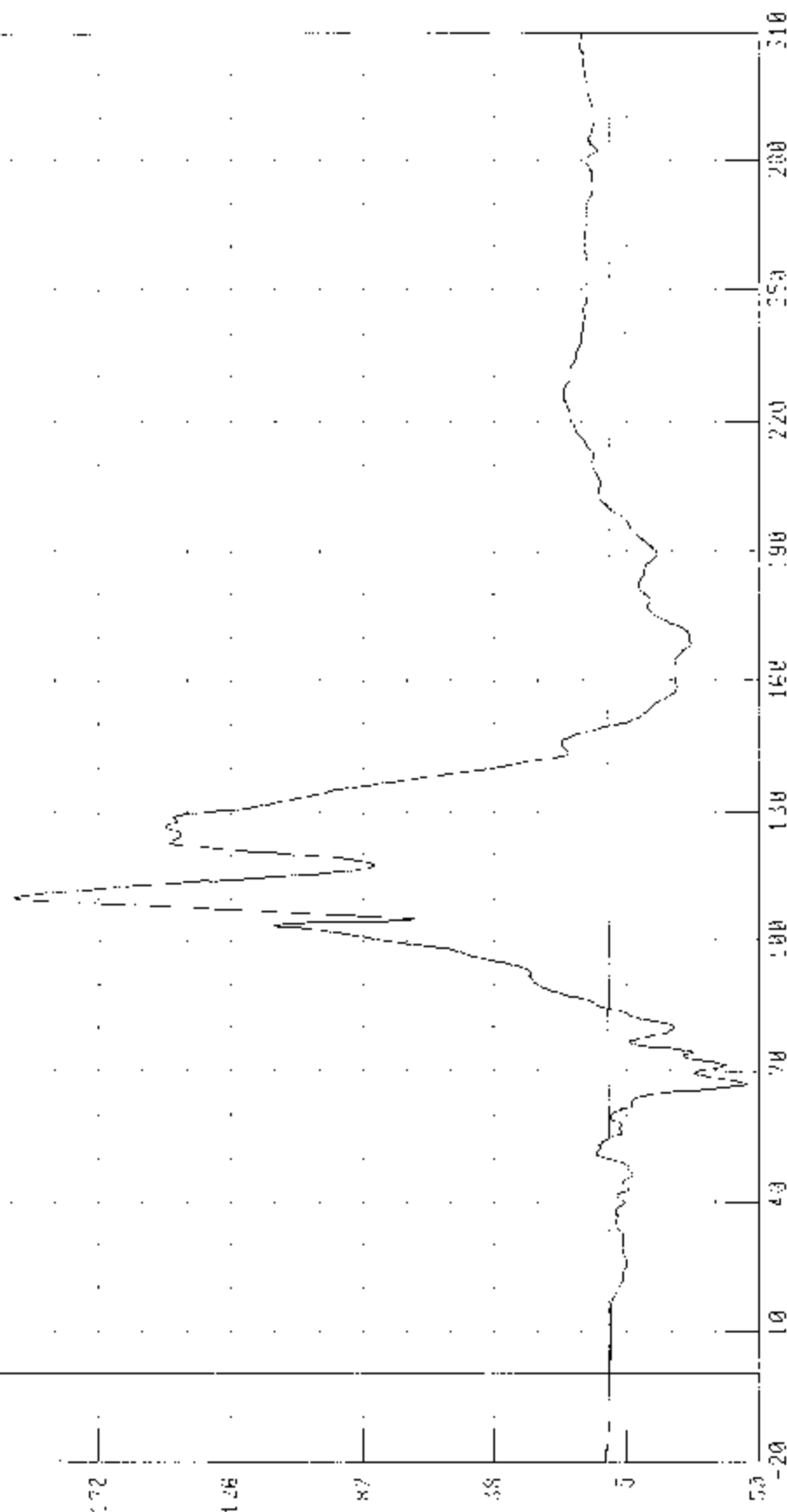
PEAK DATA 2 72 0 8 122 80 83, -2 41 0 8 68 93 113

C35100 - 2003 - 00010 1/COM0  
 RIGHT RUN: PAYSTARR DECT 7-Axis Acceleration  
 PHYS 200 SLED TFS

TFS NIMRFR 8030501

TRC NUMBER 8030501F

214



ACCELERATION (G X 10^-1)

TIME (MS)

CHANNEL C35100 FILTER CH. CLASS 130

PEAK DATA 19.85 0 0 110.56 V/S, -4.61 C 0 66.98 19

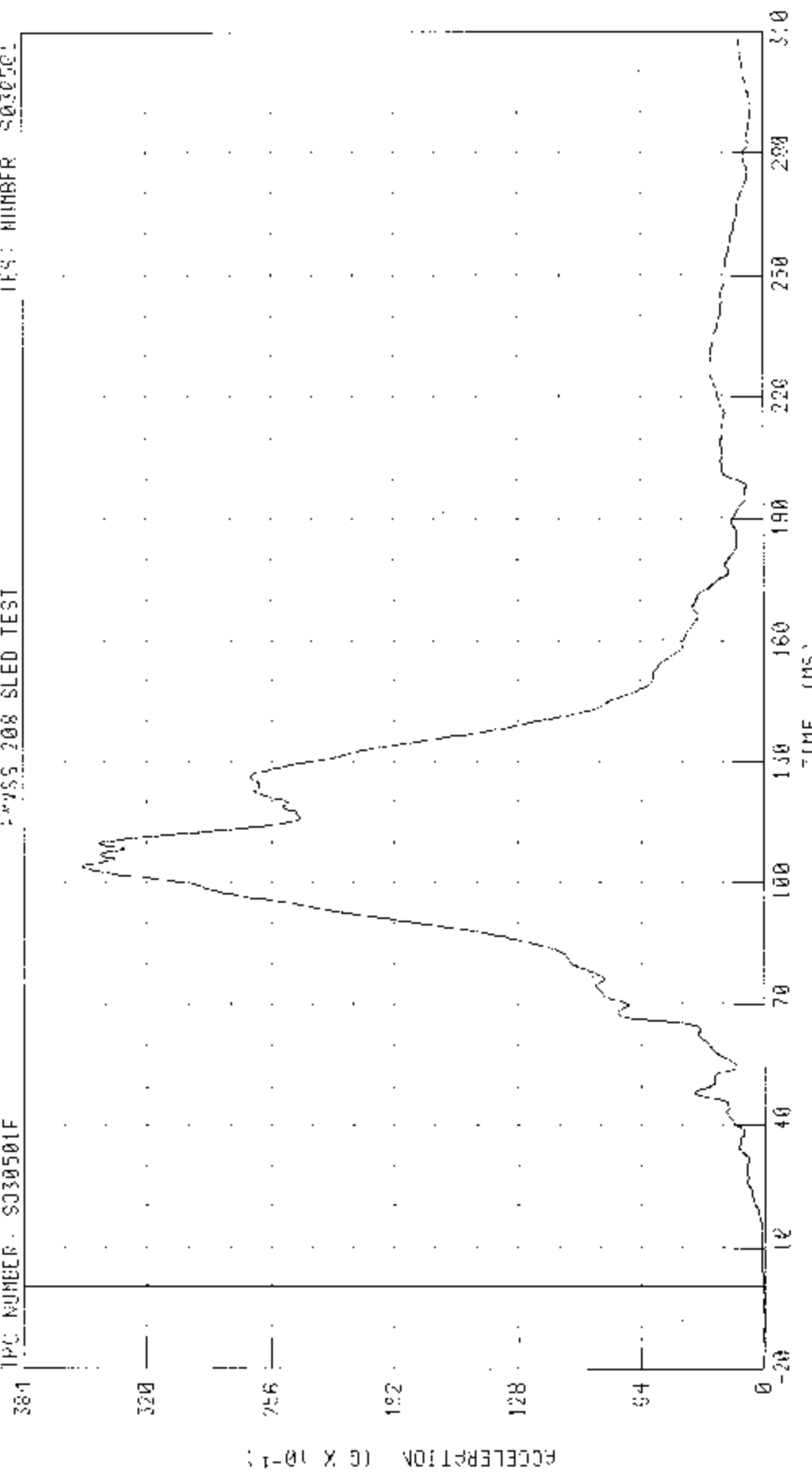
C35106 / 2003 TOYOTA TACOMA

RIGHT FRONT PASSENGER CHEST RESUMANT ACC/2 FRF111K

TEST: 208 SLED TEST

IPC NUMBER: S030501F

IES: NUMBER S030501

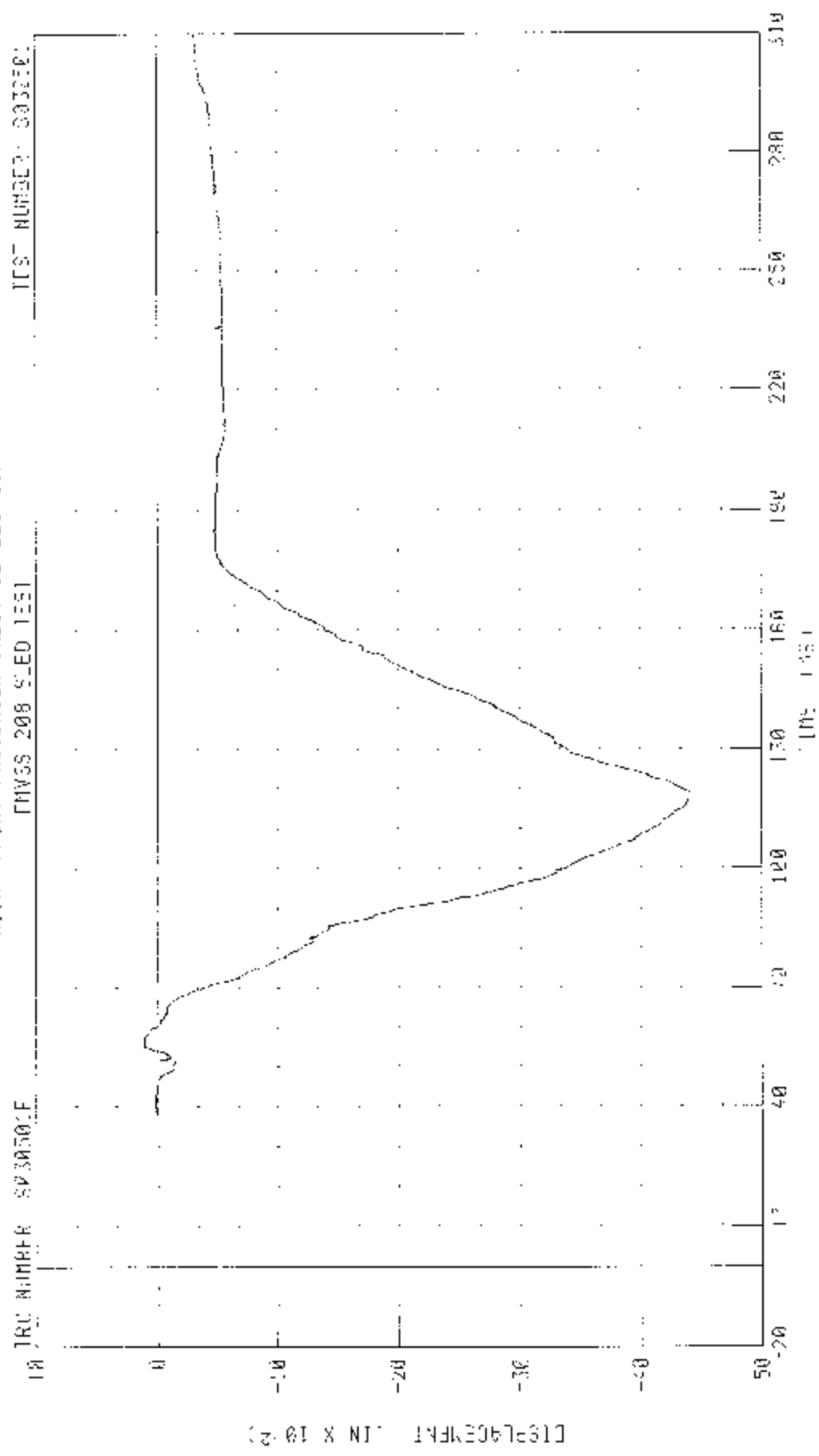


CHANNEL CSTR02 FILTER CH. CLASS 130

PEAK DATA 35.34 C @ 101.16 MS; 200 G @ -7.12 MS



04/06/03 2003 TGYDTA TACOM4  
RIGHT FRONT PASSENGER CHEST DEFECTION



CHANNEL: CST402 FILTER: CH LOSS: 600  
TIME: 1551  
PEAK VALUE: 45.00  
TIME: 130.00

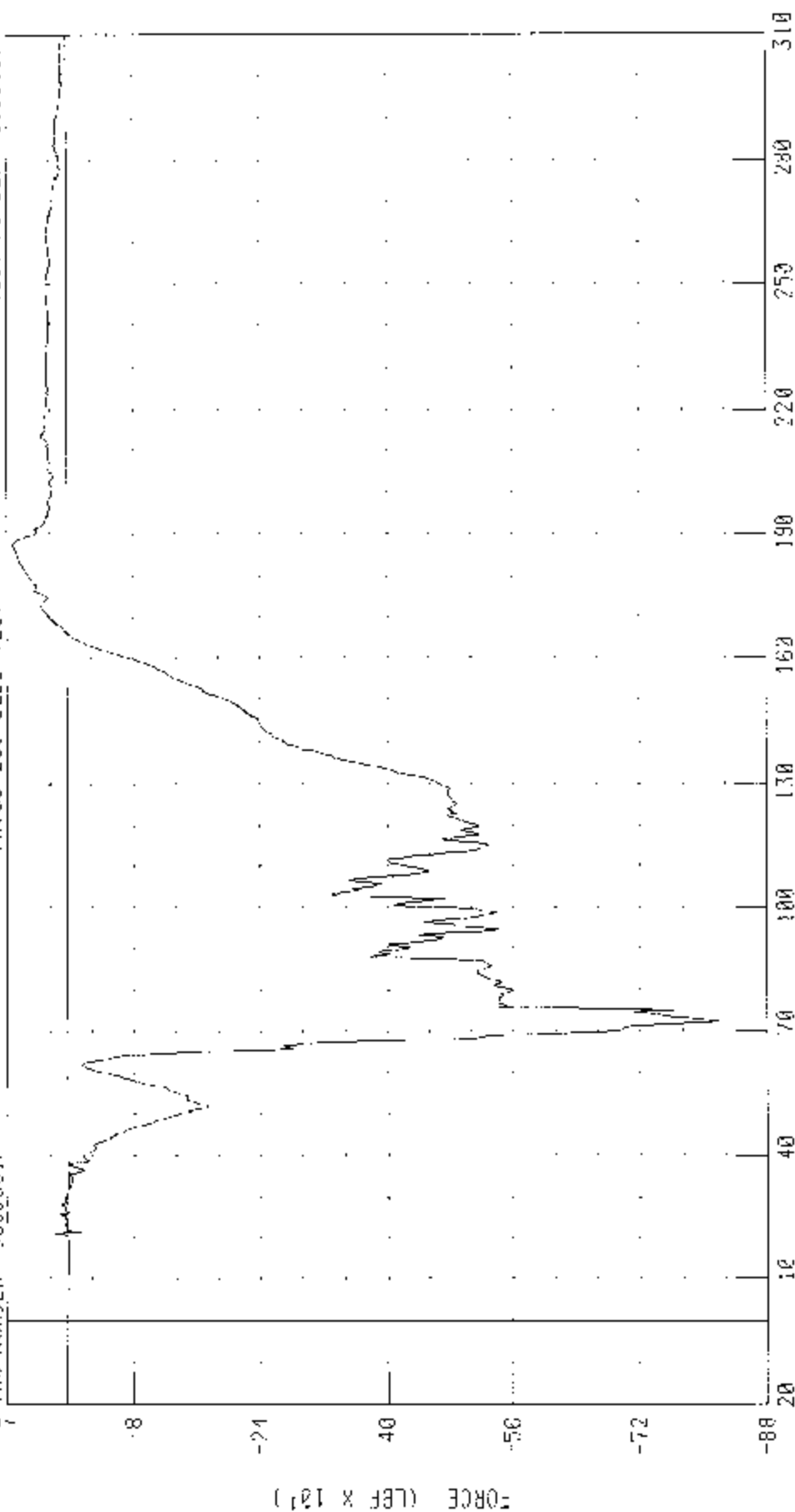
CJ5186 / 2003 TOYOTA TACUMA

RIGHT FRONT PASSENGER LEFT FEET/ R FORCE

TRC NUMBER: S030501F

FNVS 200 SLED TEST

TEST NUMBER: S030501

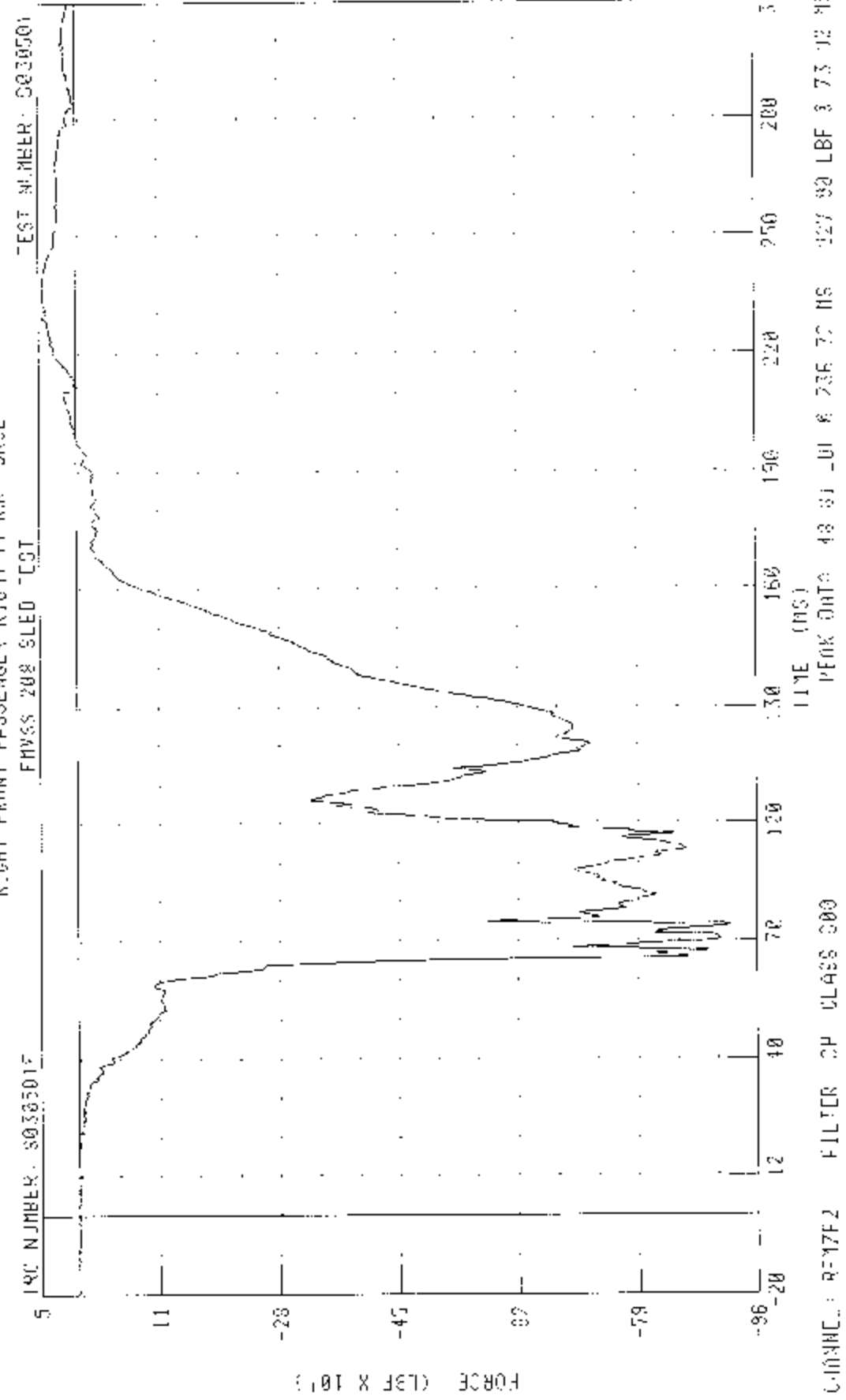


TIME (MS)

PEAK DATA: 68.80 LBF @ 187.20 MS, 823.68 LBF @ 77.60 MS

CHANNEL: LFM7F2 FILTER: CH CLASS: 600

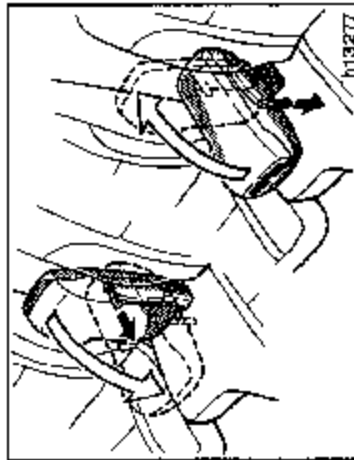
CIS106 / 2023 TOYOTA TACUMA  
 RIGHT FRONT PASSENGER RIGHT FFMLR FORCE  
 PHYS 208 SLED TEST



## Appendix C

### Manufacturer's Vehicle Information

## Armrest



To use the armrest, do this.

To lower: Pull the lock release strap and down the armrest.

To raise: Push down the lock release strap and up the armrest.

### NOTICE

To prevent damage to the armrest, avoid putting heavy loads on it.

## Seat belts— —Seat belt precautions

Toyota strongly urges that the driver and passengers in the vehicle be properly restrained at all times with the seat belts provided. Failure to do so could increase the chance of injury and/or the severity of injury in accidents.

The seat belts provided for your vehicle are designed for people of adult size, large enough to properly wear them.

**Child.** Use a child restraint system appropriate for the child until the child becomes large enough to properly wear the vehicle's seat belts. See "Child restraint" for details.

### REGULAR CAB MODELS—

If a child is too large for a child restraint system, the child should sit in the seat and must be restrained using the vehicle's seat belt.

### XTRA-CAB and DOUBLE CAB MODELS—

If a child is too large for a child restraint system, the child should sit in the rear seat and must be restrained using the vehicle's seat belt. According to accident statistics, the child is safer when properly restrained in the rear seat than in the front seat.

If a child must sit in the front seat, the seat belts should be worn properly. If an accident occurs and the seat belts are not worn properly, the force of the rapid inflation of the airbag may cause death or serious injury to the child.

Do not allow the child to stand up or kneel on either rear or front seats. An unrestrained child could suffer serious injury or death during emergency braking or a collision. Also, do not let the child sit on your lap. It does not provide sufficient restraint.

**Small-framed person or youth in a 3-point type seat belt.** On models with a bench seat, have a small-framed person or youth sit slightly closer to the center of the vehicle (so the shoulder belt does not cross over the neck). On models with separate seats, move the seat fully backward.

**Pregnant woman.** Toyota recommends the use of a seat belt. Ask your doctor for specific recommendations. The lap belt should be worn securely and as low as possible over the hips and not on the waist.

## —Front and rear outside seat belts



Adjust the seat as needed (front seats only) and sit up straight and well back in the seat. To fasten your belt, pull it out of the retractor and insert the tab into the buckle.

You will hear a click when the tab locks into the buckle.

The seat belt length automatically adjusts to your size and the seat position.

The retractor will lock the belt during a sudden stop or on impact. It also may lock if you lean forward too quickly. A slow, easy motion will allow the belt to extend, and you can move around freely.

- Inspect the belt system periodically. Check for cuts, fraying, and loose parts. Damaged parts should be replaced. Do not disassemble or modify the system.
- Keep the belts clean and dry. If they need cleaning, use a mild soap solution or lukewarm water. Never use bleach, dye, or abrasive cleaners—they may severely weaken the belts. (See "Cleaning the Interior" in Section 5.)
- Replace the belt assembly (including bolts) if it has been used in a severe impact. The entire assembly should be replaced even if damage is not obvious.

Injured person. Toyota recommends the use of a seat belt. Depending on the injury, first check with your doctor for specific recommendations.

### ⚠ CAUTION

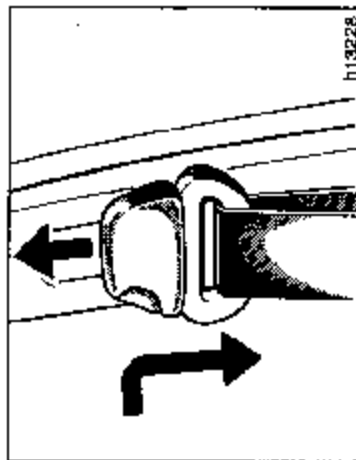
Persons should ride in their seats properly wearing their seat belts whenever the vehicle is moving. Otherwise, they are much more likely to suffer serious bodily injury or death in the event of sudden braking or a collision.

When using the seat belts, observe the following:

- Use the belt for only one person at a time. Do not use a single belt for two or more people—even children.
- Avoid reclining the seatbacks too much. The seat belts provide maximum protection when the seatbacks are in the upright position. (Refer to the seat adjustment instructions.)
- Be careful not to damage the belt webbing or hardware. Take care that they do not get caught or pinched in the seat or side doors.

If the seat belt cannot be pulled out of the retractor, firmly pull the belt and release it. You will then be able to smoothly pull the belt out of the retractor.

When a passenger's shoulder belt is completely extended and is then retracted even slightly, the belt is locked in that position and cannot be extended. This feature is used to hold the child restraint system securely. (For details, see "Child restraint" in this section.) To free the belt again, fully retract the belt and then pull the belt out once more.



# **CAUTION**

Always make sure the shoulder belt is positioned across the center of your shoulder. The belt should be kept away from your neck, but not falling off your shoulder. Failure to do so could reduce the amount of protection in an accident and cause severe injuries in a collision.

# **CAUTION**

- After inserting the tab, make sure the tab and buckle are locked and that the belt is not twisted.
- Do not insert coins, clips, etc. in the buckle as this may prevent you from properly latching the tab and buckle.
- If the seat belt does not function normally, immediately contact your Toyota dealer. Do not use the seat until the seat belt is fixed. It cannot protect an adult occupant or your child from injury.

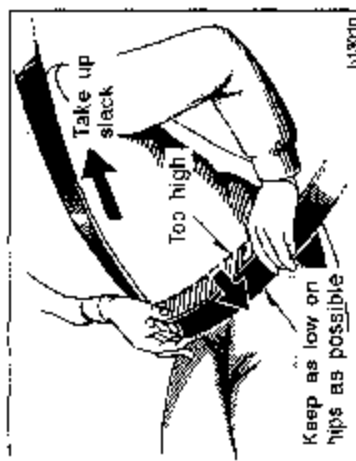
Seat belts with an adjustable shoulder anchor—

Adjust the shoulder anchor position to your size.

To raise: Slide the anchor up.

To lower: Push in the lock release button and slide the anchor down.

After adjustment, make sure the anchor is locked in position.



#### Adjust the position of the lap and shoulder belts.

Position the lap belt as low as possible on your hips— not on your waist, then adjust it to a snug fit by pulling the shoulder portion upward through the latch plate.

**⚠ CAUTION**

- Both high-positioned lap belts and loose-fitting belts could cause serious injuries due to sliding under the lap belt during a collision or other unintended result. Keep the lap belt positioned as low on hips as possible.
- For your safety, do not place the shoulder belt under your arm.

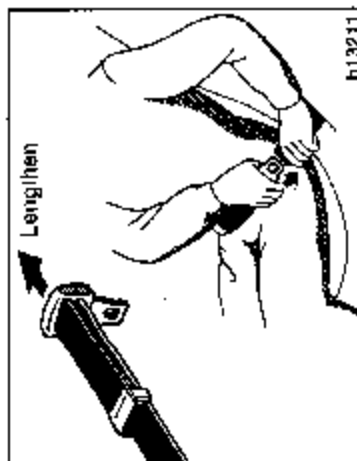


To release the belt, press the buckle-release button and allow the belt to retract.

If the belt does not retract smoothly, pull it out and check for kinks or twists. Then make sure it remains untwisted as it retracts.



# —Front and rear center seat belt



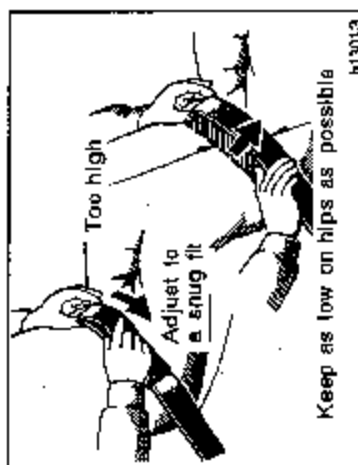
Sit up straight and well back in the seat. To fasten your belt, insert the tab into the buckle.

You will hear a click when the tab locks into the buckle.

If the belt is not long enough for you, hold the tab at a right angle to the belt and pull on the tab.

**CAUTION**

- After inserting the tab, make sure the tab and buckle are locked and that the belt is not twisted.
- Do not insert coins, clips, etc. in the buckle as this may prevent you from properly latching the tab and buckle.
- If the seat belt does not function normally, immediately contact your Toyota dealer. Do not use the seat until the seat belt is fixed. It cannot protect an adult occupant or your child from injury.



Remove excess length of the belt and adjust the belt position.

To shorten the belt, pull the free end of the belt.

Position the lap belt as low as possible on your hips—not on your waist, then adjust it to a snug fit.

**CAUTION**

Both high-positioned and loose-fitting lap belts could cause serious injuries due to sliding under the lap belt during a collision or other unintended result. Keep the lap belt positioned as low on hips as possible.

### —Stowing the rear seat buckles (extra-cab models)



To release the belt, press the buckle-release button.



The buckles can be fixed when not in use.

When taking out the buckle from the holder, pull on the belt webbing to remove the buckle from the lower portion.

### —Seat belt extender

If your seat belts cannot be fastened securely because they are not long enough, a personalized seat belt extender is available from your Toyota dealer free of charge.

Please contact your local Toyota dealer so that the dealer can order the proper required length for the extender. Bring the heaviest coat you expect to wear for proper measurement and selection of length. Additional ordering information is available at your Toyota dealer.

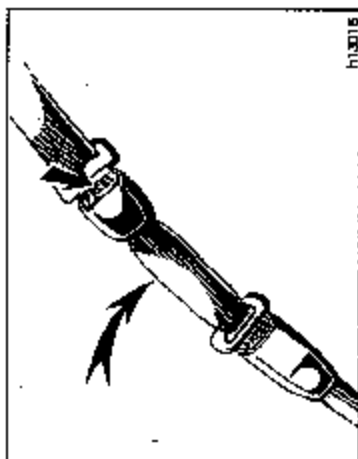
### ⚠ CAUTION

When using the seat belt extender, observe the following precautions.

Failure to follow these instructions could reduce the effectiveness of the seat belt restraint system in case of vehicle accident, increasing the chance of personal injury.

- Never use the seat belt extender if you can fasten the seat belt without it.

● Remember that the extender provided for you may not be safe when used on a different vehicle, for another person, or at a different seating position than the one originally intended.



To connect the extender to the seat belt, insert the tab into the seat belt buckle so that the "PRESS" signs on the buckle-release buttons of the extender and the seat belt are both facing outward as shown.

You will hear a click when the tab locks into the buckle.

When releasing the seat belt, press on the buckle-release button on the extender, not on the seat belt. This helps prevent damage to the vehicle interior and extender itself.

When not in use, remove the extender and store in the vehicle for future use.

# **CAUTION**

- After inserting the tab, make sure the tab and buckle are locked and that the seat belt extender is not twisted.
- Do not insert coins, clips, etc. in the buckle as this may prevent you from properly latching the tab and buckle.
- If the seat belt does not function normally, immediately contact your Toyota dealer. Do not use the seat until the seat belt is fixed. It cannot protect an adult occupant or your child from injury.

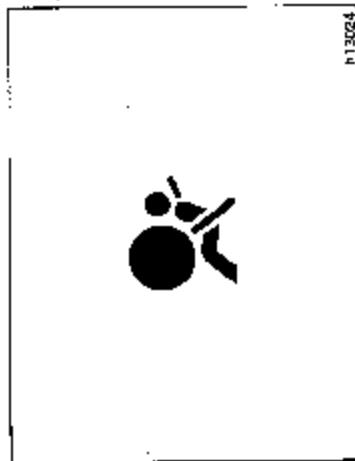
## —Front seat belt pretensioners



The driver and front passenger's seat belt pretensioners are designed to be activated in response to a severe frontal impact.

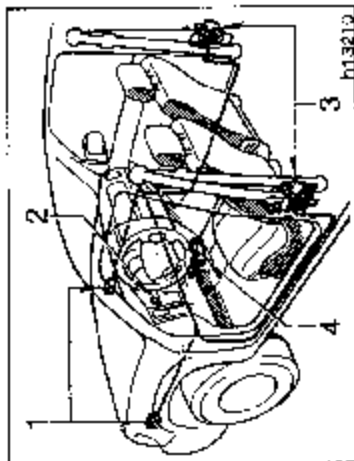
When the airbag sensor detects the shock of a severe frontal impact, the front seat belts are quickly drawn back in by the retractors so that the belts snugly restrain the front seat occupants.

The front seat belt pretensioners are activated even with no passenger in the front seat.



This indicator comes on when the ignition key is turned to the "ON" position. It goes off after about 6 seconds. This means the front seat belt pretensioners are operating properly.

This warning light system monitors the airbag sensor assembly, front airbag sensors, front seat belt pretensioner assemblies, inflators, warning light, interconnecting wiring and power sources. (For details, see "Service reminder indicators and warning buzzers" in Section 1-5.)



The front seat belt pretensioner system mainly consists of the following components and their locations are shown in the illustration.

1. Front airbag sensors
2. SRS warning light
3. Front seat belt pretensioner assemblies
4. Airbag sensor assembly

The front seat belt pretensioners are controlled by the airbag sensor assembly. The airbag sensor assembly consists of a sensing sensor and airbag sensor.

When the front seat belt pretensioners are activated, an operating noise may be heard and a small amount of smoke-like gas may be released. This gas is harmless and does not indicate that a fire is occurring.

Once the front seat belt pretensioners have been activated, the seat belt retractors remain locked.

#### ⚠ CAUTION

Do not modify, remove, strike or open the front seat belt pretensioner assemblies, airbag sensor or surrounding area or wiring. Doing any of these may cause sudden operation of the front seat belt pretensioners or disable the system, which could result in death or serious injury. Failure to follow these instructions can result in death or serious injuries. Consult your Toyota dealer about any repairs and modifications.

#### NOTICE

*Do not perform any of the following changes without consulting your Toyota dealer. Such changes can interfere with proper operation of the front seat belt pretensioners in some cases.*

- ◆ *Installation of electronic devices such as a mobile two-way radio, cassette tape player or compact disc player*
- ◆ *Repairs on or near the front seat belt pretensioner assemblies*
- ◆ *Modification of the suspension system*
- ◆ *Modification of the front end structure*
- ◆ *Attachment of a grille guard (bull bar, kangaroo bar, etc.), snowplow, winches or any other equipment to the front end*
- ◆ *Repairs made on or near the front fenders, front end structure or control*

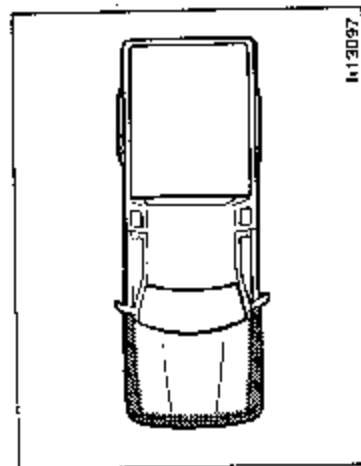


13324

This front seat belt pretensioner system has a service reminder indicator to inform the driver of operating problems. If any of the following conditions occurs, this indicates a malfunction of the airbags or pretensioners. Contact your Toyota dealer as soon as possible to service the vehicle.

- ◆ The light does not come on when the ignition key is turned to the "ON" position, or the light remains on.
- ◆ The light comes on or flashes while driving.
- ◆ If either front seat belt does not retract or can not be pulled out due to a malfunction or activation of the relevant front seat belt pretensioner.

**SRS driver airbag and front passenger airbag  
(vehicles with passenger airbag manual on-off switch)**



In the following cases, contact your Toyota dealer as soon as possible:

- The front part of the vehicle (shaded in the illustration) was involved in an accident that was not severe enough to cause the front seat belt pretensioners to operate.
- Either front seat belt pretensioner assembly or surrounding area is scratched, cracked, or otherwise damaged.

In response to a severe frontal impact, the SRS airbags work together with the seat belts to help prevent or reduce injury by inflating. The SRS airbags help to reduce injuries mainly to the driver's or front passenger's head or chest directly hitting the steering wheel or dashboard. When the passenger airbag manual on-off switch is in the "ON" position, the front passenger airbag is activated even with no passenger in the front seat.

Be sure to wear your seat belt properly. Your vehicle is equipped with a crash sensing and diagnostic module, which will record the use of the seat belt restraint system by the driver when the SRS airbags are inflated.



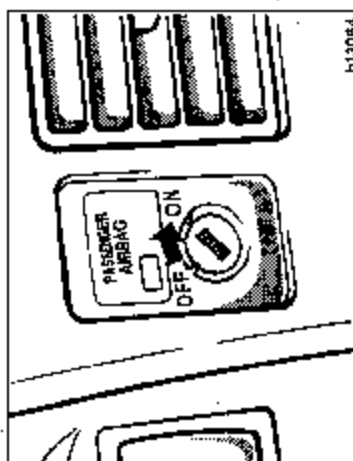
The SRS (Supplemental Restraint System) airbags are designed to provide further protection for occupants in the following seats in addition to the primary safety protection provided by the seat belts.

- Models with separate front seats—The SRS airbags are designed to protect the driver and front passenger.
- Models with bench front seats—The SRS airbags are designed to protect the driver and right-front passenger. They are not designed to protect occupant in the center position.

# **CAUTION**

The driver or front passenger who is too close to the steering wheel or dashboard during airbag deployment can be killed or seriously injured. Toyota strongly recommends that:

- The driver sit as far back as possible from the steering wheel while still maintaining control of the vehicle.
- The front passenger sit as far back as possible from the dashboard.
- All vehicle occupants be properly restrained using the available seat belts.



The passenger airbag system is equipped with a manual on-off switch and indicator light. Turning the passenger airbag manual on-off switch clockwise to the "ON" position makes the front passenger airbag system operational. Turning the passenger airbag manual on-off switch counterclockwise to the "OFF" position disables the front passenger airbag system. The indicator light on the passenger airbag manual on-off switch will come on when the front passenger airbag system has been disabled.

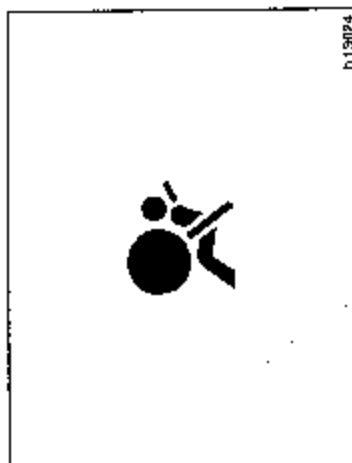
See "Passenger airbag manual on-off switch" in this section for detail.

# **CAUTION**

- Make sure that the indicator light is off.
- Do not turn off the passenger airbag manual on-off switch except when a member of a passenger risk group identified in TABLE 1 is occupying the right front passenger seating position.
- When the passenger airbag manual on-off switch is turned off, the front passenger airbag will not inflate in a collision and turning off the front passenger airbag can reduce the occupant protection which your vehicle safety systems can provide to you in certain accidents and increase the likelihood of serious personal injuries.

TABLE 1: A PASSENGER RISK GROUP	
<b>Infant.</b> An infant (less than 1 year old) who must ride in the front seat because: <ul style="list-style-type: none"> <li>• Vehicle has no rear seat;</li> <li>• Vehicle has a rear seat too small to accommodate a rear-facing infant seat; or</li> <li>• The infant has a medical condition which, according to the infant's physician, makes it necessary for the infant to ride in the front seat so that the driver can constantly monitor the child's condition.</li> </ul>	
<b>Child age 1 to 12.</b> A child age 1 to 12 must ride in the front seat because: <ul style="list-style-type: none"> <li>• Vehicle has no rear seat;</li> <li>• Although children ages 1 to 12 ride in the rear seat(s) whenever possible, children ages 1 to 12 sometimes must ride in the front because no space is available in the rear seat(s) of vehicle; or</li> <li>• The child has a medical condition which, according to the child's physician, makes it necessary for the child to ride in the front seat so that the driver can constantly monitor the child's condition.</li> </ul>	
<b>Medical condition.</b> A passenger has a medical condition which according to his or her physician: <ul style="list-style-type: none"> <li>• Causes the passenger airbag to pose a special risk for the passenger; and</li> <li>• Makes the potential harm from the passenger airbag in a crash greater than the potential harm from turning off the airbag and allowing the passenger, even if belted, to hit the dashboard, or windshield in a crash.</li> </ul>	

For more detailed information concerning the passenger risk group, please contact NHTSA at 1-800-424-9393 or Transport Canada at 1-800-333-0371.

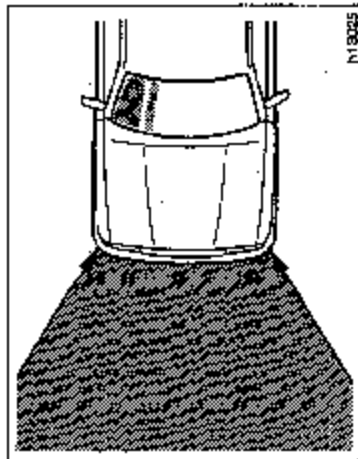


h13024

This indicator comes on when the ignition key is turned to the "ON" position. It goes off after about 6 seconds. This means the SRS airbags are operating properly.

This warning light system monitors the airbag sensor assembly, front airbag sensors, front seat belt pretensioner assemblies, inflators, warning light, interconnecting wiring and power sources. (For details, see "Service reminder indicators and warning buzzers" in Section 1-5.)





The SRS airbag system is designed to activate in response to a severe frontal impact within the shaded area between the arrows in the illustration.

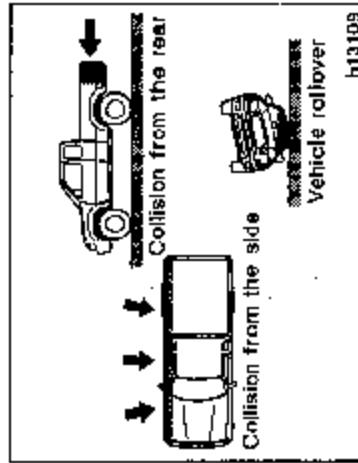
The SRS airbags will deploy if the severity of the impact is above the designed threshold level, comparable to an approximate 25 km/h (15 mph) collision when impacting straight into a fixed barrier that does not move or deform.

If the severity of the impact is below the above threshold level, the SRS airbags may not deploy.

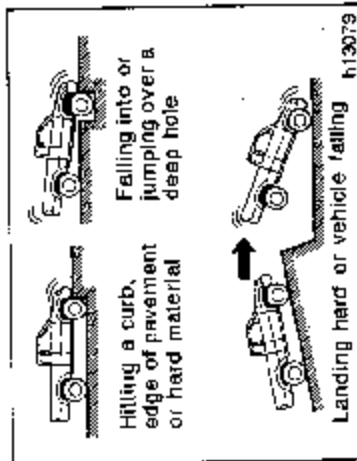
However, this threshold velocity will be considerably higher if the vehicle strikes an object, such as a parked vehicle or sign pole, which can move or deform on impact, or if it is involved in an underide collision (e.g. a collision in which the nose of the vehicle "underrides", or goes under, the bed of a truck, etc.).

It is possible that in some collisions at the lower zone of airbag sensor detection and activation the SRS airbags and seat belt pretensioners will not operate all together.

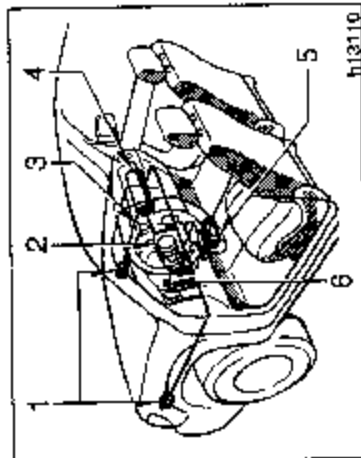
For the safety of all occupants, always wear your seat belts properly.



The SRS airbags are not designed to inflate if the vehicle is involved in a side or rear collision, if it rolls over, or if it is involved in a low-speed frontal collision.



The SRS airbags may deploy if a serious impact occurs to the underside of your vehicle. Some examples are shown in the illustration.



The SRS airbag system consists mainly of the following components, and their locations are shown in the illustration.

1. Front airbag sensors
2. Airbag module for driver (airbag and inflator)
3. Passenger airbag manual on-off switch
4. Airbag module for front passenger (airbag and inflator)
5. Airbag sensor assembly
6. SRS warning light

The airbag sensor assembly consists of a seating sensor and airbag sensor.

In a severe frontal impact, the sensors detect deceleration and the system triggers the airbag inflators. Then a chemical reaction in the inflators quickly fills the airbags with non-toxic gas to help restrain the forward motion of the occupants.

When the airbags inflate, they produce a fairly loud noise and release some smoke and residue along with non-toxic gas. This does not indicate a fire. This gas is normally harmless; however, for those who have delicate skin, it may cause a minor skin irritation. Be sure to wash off any residue as soon as possible to prevent any potential skin irritation.

Deployment of the airbags happens in a fraction of a second, so the airbags must inflate with considerable force. While the system is designed to reduce serious injuries, it may also cause minor burns or abrasions and swelling.

Parts of the airbag module (steering wheel hub, dashboard) may be hot for several minutes, but the airbags themselves will not be hot. The airbags are designed to inflate only once.

A crash severe enough to inflate the airbags may break the windshield as the vehicle buckles. In vehicles with a passenger airbag the windshield may also be damaged by absorbing some of the force of the inflating airbag.

# CAUTION

• The SRS airbag system is designed only as a supplement to the primary protection of the driver side and front passenger side seat belt systems. The front seat occupants can be killed or seriously injured by the inflating airbags if they do not wear the available seat belts properly. During sudden braking just before a collision, an unrestrained driver or front passenger can move forward into direct contact with or close proximity to the airbag which may then deploy during the collision. To ensure maximum protection in an accident, the driver and all passengers in the vehicle must wear their seat belts properly. Wearing a seat belt properly during an accident reduces the chances of death or serious injury or being thrown out of the vehicle. For instructions and precautions concerning the seat belt system, see "Seat belts" in this section.

• Improperly seated and/or restrained infants and children can be killed or seriously injured by the deploying airbags. An infant or child who is too small to use a seat belt should be properly secured using a child restraint system. As to Xtracab models, Toyota recommends that all infants and children be placed in the rear seat of the vehicle and properly restrained. The rear seat is the safest for infants and children. For instructions concerning the installation of a child restraint system, see "Child restraint" in this section.

**CAUTION**

A member of a passenger risk group should never sit or be occupied in the right front passenger seat with the airbag manual on-off switch in the "ON" position. (For details, see "SRS driver and front passenger airbags" in this section.)



• A forward-facing child restraint system which belongs to a passenger risk group should never be installed on the right front seat with the passenger airbag manual on-off switch in the "ON" position, because the force of the deploying airbag could cause death or serious injury to the child in forward seating position. For instructions concerning the installation of a child restraint system, see "Child restraint" in this section.

**CAUTION**

• Never install a rear-facing child restraint system on the right front seat with the passenger airbag manual on-off switch in the "ON" position. In the event of an accident, the force of the rapid inflation of the front passenger airbag can cause death or serious injury to the child.

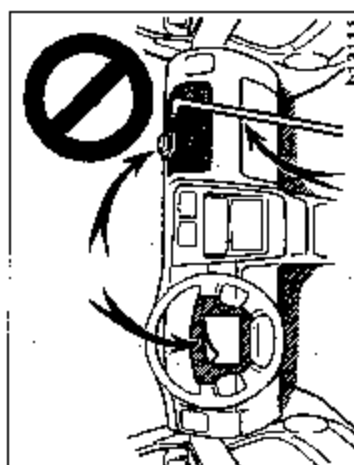


● Do not sit on the edge of the seat or lean over the dashboard when the vehicle is in use, since the airbags inflate with considerable speed and force. Otherwise you may be killed or seriously injured. Sit up straight and well back in the seat, and always use your seat belt properly.



● Do not allow a child to stand up or to kneel on the front passenger seat, since the airbag inflates with considerable speed and force. Otherwise, the child may be killed or seriously injured.

● Do not hold a child on your lap or in your arms. Use a child restraint system in the rear seat. For instructions concerning the installation of a child restraint system, see "Child restraint" in this section.



● Do not put objects on your pets on or in front of the dashboard or steering wheel pad that houses the airbag system. They might restrict inflation or cause death or serious injury as they are projected rearward by the force of the deploying airbags. Likewise, the driver and front passenger should not hold objects in their arms or on their knees.

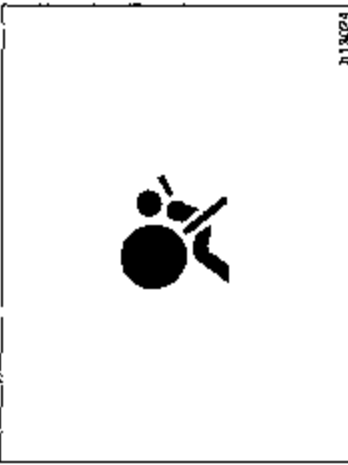
◆ Do not modify or remove any wiring. Do not modify, remove, strike or open any components such as the steering wheel pad, steering wheel, column cover, front passenger airbag or airbag sensor assembly. Doing so may cause sudden SRS airbag inflation or disable the system, which could result in death or serious injury.

Failure to follow these instructions can result in death or serious injury. Consult your Toyota dealer about any repairs and modifications.

**NOTICE**

Do not perform any of the following changes without consulting your Toyota dealer. Such changes can interfere with proper operation of the SRS airbag system in some cases.

- ◆ Installation of electronic devices such as a mobile two-way radio, cassette tape player or compact disc player
- ◆ Modification of the suspension system
- ◆ Modification of the front end structure
- ◆ Attachment of a grille guard (bull bar, kangaroo bar, etc.), snowplow, winches or any other equipment to the front end
- ◆ Repairs made on or near the front fenders, front end structure, console, steering column, steering wheel or dashboard near the front passenger airbag



This SRS airbag system has a service reminder indicator to inform the driver of operating problems. If either of the following conditions occurs, this indicates a malfunction of the airbags. Contact your Toyota dealer as soon as possible to service the vehicle.

- ◆ The light does not come on when the ignition key is turned to the "ON" position, or the light remains on.
- ◆ The light comes on while driving.

**SRS driver airbag and front passenger airbag (vehicles without passenger airbag manual on-off switch)**



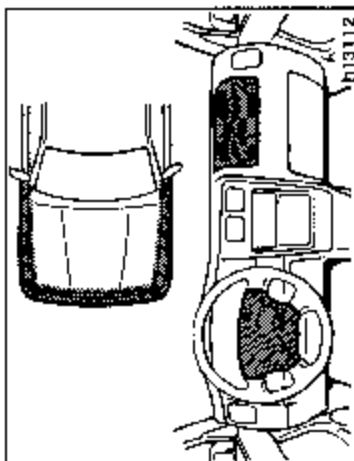
h13106

The SRS (Supplemental Restraint System) airbags are designed to provide further protection for the driver and front passenger in addition to the primary safety protection provided by the seat belts.

In response to a severe frontal impact, the SRS airbags work together with the seat belts to help reduce injury by inflating. The SRS airbags help to reduce injuries mainly to the driver's or front passenger's head or chest caused by directly hitting the steering wheel or dashboard. The front passenger airbag is activated even with no passenger in the front seat. Be sure to wear your seat belt properly.

#### **NOTICE**

**Do not disconnect the battery cables before contacting your Toyota dealer.**



h13112

In the following cases, contact your Toyota dealer as soon as possible:

- The SRS front airbags have been inflated.
- The front of the vehicle (shaded in the illustration) was involved in an accident that was not severe enough to cause the SRS airbags to inflate.
- The pad section of the steering wheel or front passenger airbag cover (shaded in the illustration) is scratched, cracked, or otherwise damaged.

Your vehicle is equipped with a crash sensing and diagnostic module, which will record the use of the seat belt restraint system by the driver when the SRS airbags are inflated.

# **CAUTION**

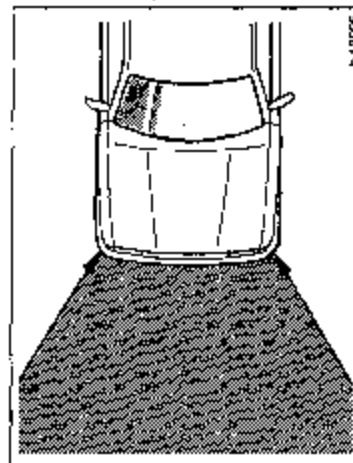
The driver or front passenger who is too close to the steering wheel or dashboard during airbag deployment can be killed or seriously injured. Toyota strongly recommends that:

- The driver sit as far back as possible from the steering wheel while still maintaining control of the vehicle.
- The front passenger sit as far back as possible from the dashboard.
- All vehicle occupants be properly restrained using the available seat belts.



This indicator comes on when the ignition key is turned to the "ON" position. It goes off after about 6 seconds. This means the SRS airbags are operating properly.

This warning light system monitors the airbag sensor assembly, front airbag sensors, front seat belt pretensioner assemblies, inflators, warning light, interconnecting wiring and power sources. (For details, see "Service reminder indicators and warning buzzers" in Section 1-5.)



The SRS airbag system is designed to activate in response to a severe frontal impact within the shaded area between the arrows in the illustration.

The SRS airbags will deploy if the severity of the impact is above the designed threshold level, comparable to an approximate 25 km/h (15 mph) collision when impacting straight into a fixed barrier that does not move or deform.

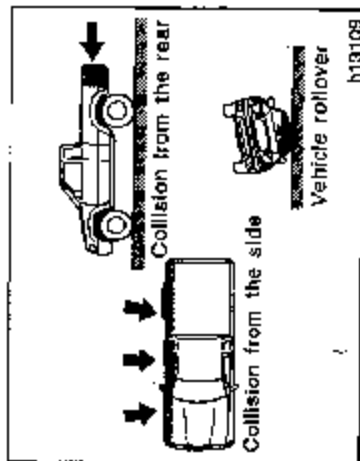
If the severity of the impact is below the above threshold level, the SRS airbags may not deploy.



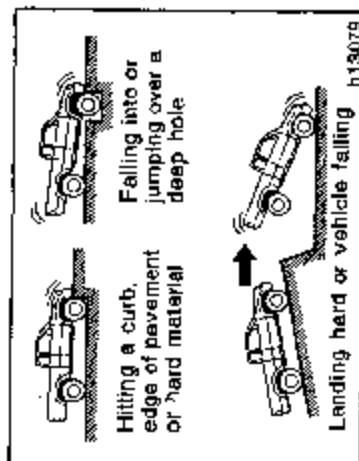
However, this threshold velocity will be considerably higher if the vehicle strikes an object, such as a parked vehicle or sign pole, which can move or deform on impact, or if it is involved in an underide collision (e.g. a collision in which the nose of the vehicle "underrides", or goes under, the bed of a truck, etc.).

It is possible that in some collisions at the lower zone of airbag sensor detection and activation the SRS airbags and seat belt pretensioners will not operate all together.

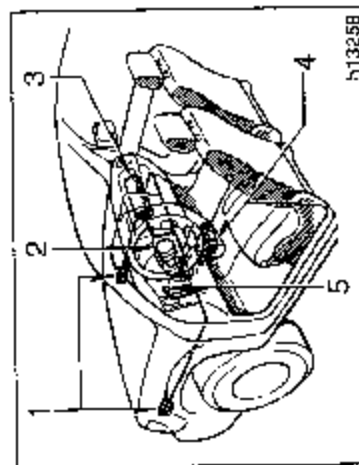
For the safety of all occupants, always wear your seat belts properly.



The SRS airbags are not designed to initiate if the vehicle is involved in a side or rear collision, if it rolls over, or if it is involved in a low-speed frontal collision.



The SRS airbags may deploy if a serious impact occurs to the underside of your vehicle. Some examples are shown in the illustration.



The SRS airbag system consists mainly of the following components, and their locations are shown in the illustration.

1. Front airbag sensors
2. Airbag module for driver (airbag and inflator)
3. Airbag module for front passenger (airbag and inflator)
4. Airbag sensor assembly
5. SRS warning light

The airbag sensor assembly consists of a safing sensor and airbag sensor.

In a severe frontal impact, the sensors detect deceleration and the system triggers the airbag inflators. Then a chemical reaction in the inflators quickly fills the airbags with non-toxic gas to help restrain the forward motion of the occupants.

When the airbags inflate, they produce a fairly loud noise and release some smoke and residue along with non-toxic gas. This does not indicate a fire. This gas is normally harmless; however, for those who have delicate skin, it may cause a minor skin irritation. Be sure to wash off any residue as soon as possible to prevent any potential skin irritation.

Deployment of the airbags happens in a fraction of a second, so the airbags must inflate with considerable force. While the system is designed to reduce serious injuries, it may also cause minor burns or abrasions and swelling.

Parts of the airbag module (steering wheel hub, dashboard) may be hot for several minutes, but the airbags themselves will not be hot. The airbags are designed to inflate only once.

A crash severe enough to inflate the airbags may break the windshield as the vehicle buckles. In vehicles with a passenger airbag the windshield may also be damaged by absorbing some of the force of the inflating airbag.

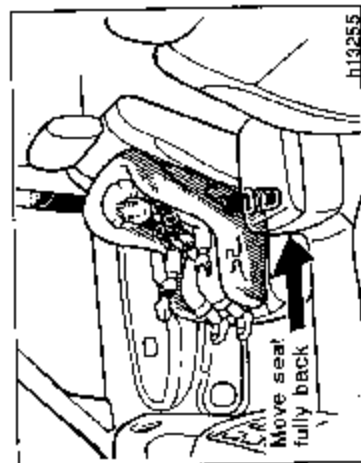
# **CAUTION**

• The SRS airbag system is designed only as a supplement to the primary protection of the driver side and front passenger side seat belt systems. The front seat occupants can be killed or seriously injured by the inflating airbags if they do not wear the available seat belts properly. During sudden braking just before a collision, an unrestrained driver or front passenger can move forward into direct contact with or close proximity to the airbag which may then deploy during the collision. To ensure maximum protection in an accident, the driver and all passengers in the vehicle must wear their seat belts properly. Wearing a seat belt properly during an accident reduces the chances of death or serious injury or being thrown out of the vehicle. For instructions and precautions concerning the seat belt system, see "Seat belts" in this section.

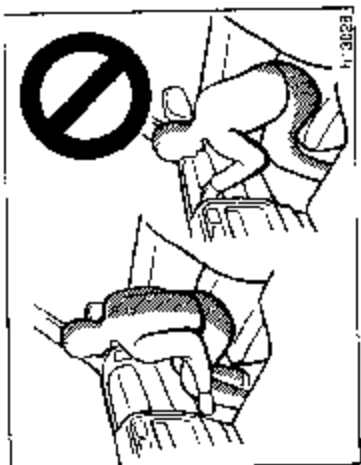
• Improperly seated and/or restrained infants and children can be killed or seriously injured by the deploying airbags. An infant or child who is too small to use a seat belt should be properly secured using a child restraint system. Toyota strongly recommends that all infants and children be placed in the rear seat of the vehicle and properly restrained. The rear seat is the safest for infants and children. For instructions concerning the installation of a child restraint system, see "Child restraint" in this section.



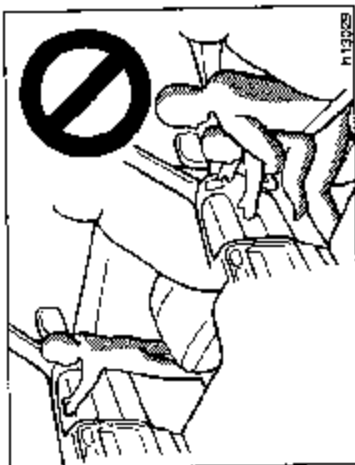
• Never install a rear-facing child restraint system on the front passenger seat because the force of the rapid inflation of the front passenger airbag can cause death or serious injury to the child.



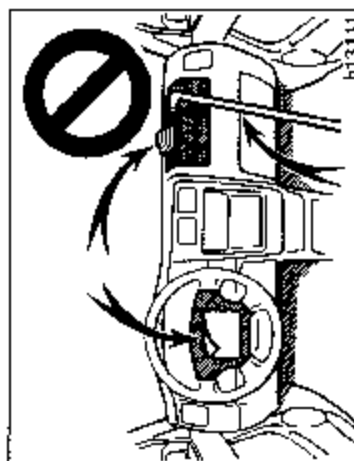
- A forward-facing child restraint system should be allowed to be installed on the front passenger seat only when it is unavoidable. Always move the seat as far back as possible, because the force of the deploying front passenger airbag could cause death or serious injury to the child. For instructions concerning the installation of a child restraint system, see "Child restraint" in this section.



- Do not sit on the edge of the seat or lean over the dashboard when the vehicle is in use, since the airbags inflate with considerable speed and force. Otherwise you may be killed or seriously injured. Sit up straight and well back in the seat, and always use your seat belt properly.



- Do not allow a child to stand up or to kneel on the front passenger seat, since the airbag inflates with considerable speed and force. Otherwise, the child may be killed or seriously injured.
- Do not hold a child on your lap or in your arms. Use a child restraint system in the rear seat. For instructions concerning the installation of a child restraint system, see "Child restraint" in this section.



• Do not put objects or your pets on or in front of the dashboard or steering wheel pad that houses the airbag system. They might restrict inflation or cause death or serious injury as they are projected rearward by the force of the deploying airbag. Likewise, the driver and front passenger should not hold things in their arms or on their knees.

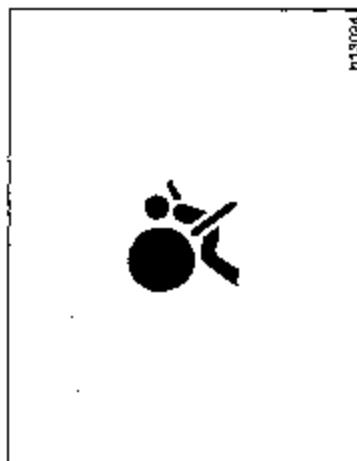
• Do not modify or remove any wiring. Do not modify, remove, strike or open any components such as the steering wheel pad, steering wheel, column cover, front passenger airbag cover, front passenger airbag or airbag sensor assembly. Doing so may cause sudden SRS airbag inflation or disable the system, which could result in death or serious injury.

Failure to follow these instructions can result in death or serious injury.

# **NOTICE**

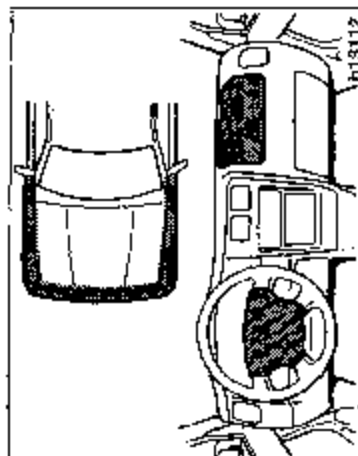
Do not perform any of the following changes without consulting your Toyota dealer. Such changes can interfere with proper operation of the SRS airbag system in some cases.

- ◆ Installation of electronic devices such as a mobile two-way radio, cassette tape player or compact disc player
- ◆ Modification of the suspension system
- ◆ Modification of the front end structure
- ◆ Attachment of a grille guard (bull bar, kangaroo bar, etc.), snowplow, winches or any other equipment to the front end
- ◆ Repairs made on or near the front fenders, front end structure, console, steering column, steering wheel or dashboard near the front passenger airbag



This SRS airbag system has a service reminder indicator to inform the driver of operating problems. If either of the following conditions occurs, this indicates a malfunction of the airbags. Contact your Toyota dealer as soon as possible to service the vehicle.

- The light does not come on when the ignition key is turned to the "ON" position, or the light remains on.
- The light comes on while driving.



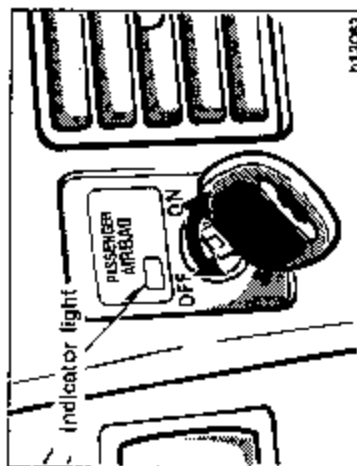
In the following cases, contact your Toyota dealer as soon as possible:

- The SRS front airbags have been inflated.
- The front of the vehicle (shaded in the illustration) was involved in an accident that was not severe enough to cause the SRS airbags to inflate.
- The pad section of the steering wheel or front passenger airbag cover (shaded in the illustration) is scratched, cracked, or otherwise damaged.

# **NOTICE**

**Do not disconnect the battery cables before contacting your Toyota dealer.**

### Passenger airbag manual on-off switch (on some models)



This on-off switch is designed to disable the front passenger airbag in order to allow usage, if necessary, of a member of a passenger risk group identified in TABLE 1 is occupying the right front passenger seating position. (For details, see "SRS driver airbag and front passenger airbag" in this section.)

#### Operate on-off switch as follows:

Insert key into the keyhole and turn it. To turn front passenger airbag on: Turn the key clockwise to the "ON" position. To turn front passenger airbag off: Turn the key counterclockwise to the "OFF" position.

The indicator light comes on when the front passenger airbag system is off.

#### CAUTION

- Make sure that the indicator light is off.
- Do not turn off the passenger airbag manual on-off switch except when a member of a passenger risk group identified in TABLE 1 is occupying the right front passenger seating position.
- When the passenger airbag manual on-off switch is turned off, the front passenger airbag will not inflate in a collision and turning off the front passenger airbag can reduce the occupant protection which your vehicle safety systems can provide to you in certain accidents and increase the likelihood of serious personal injuries.

For details, see "SRS driver and front passenger airbags" in this section.

### Child restraint— —Child restraint precautions

Toyota strongly urges the use of child restraint systems for children small enough to use them.

The laws of all 50 states in the U.S.A. and Canada now require the use of a child restraint system.

Your vehicle conforms to SAE J1819.

If a child is too large for a child restraint system, the child should sit in the seat and must be restrained using the vehicle's seat belt. See "Seat belts" for details.

#### CAUTION

- For effective protection in automobile accidents and sudden stops, a child must be properly restrained, using a seat belt or child restraint system depending on the age and size of the child. Holding a child in your arms is not a substitute for a child restraint system. In an accident, the child can be crushed against the windshield, or between you and the vehicle's interior.

Vehicles with passenger airbag manual on-off switch—

• **REGULAR CAB MODELS—**

Toyota strongly urges use of a proper child restraint system which conforms to the size of the child.

**XTRA-CAB MODELS—**

Toyota strongly urges use of a proper child restraint system which conforms to the size of the child, installed on the rear seat. According to accident statistics, the child is safer when properly restrained in the rear seat than in the front seat.

- Never put infant or child age 1 to 12 in a passenger risk group on the right front seat with the passenger airbag manual on-off switch in the "ON" position. In the event of an accident, the force of the rapid inflation of the passenger airbag can cause death or serious injury to the child.

If you must put infant or child age 1 to 12 in a passenger risk group on the right front seat, make sure the passenger airbag manual on-off switch is in the "OFF" position and that the indicator light is on. (For details, see "SRS driver airbag and front passenger airbag" in this section.)

- Make sure that you have complied with all installation instructions provided by the child restraint manufacturer and that the system is properly secured.

Vehicles without passenger airbag manual on-off switch—

- Toyota strongly urges use of a proper child restraint system which conforms to the size of the child, installed on the rear seat. According to accident statistics, the child is safer when properly restrained in the rear seat than in the front seat.

- Never install a rear-facing child restraint system on the front seat. In the event of an accident, the force of the rapid inflation of the airbag can cause death or serious injury if a rear-facing child restraint system is installed on the front seat.

- Unless it is unavoidable, do not install a forward-facing child restraint system on the front seat.

- A forward-facing child restraint system should be allowed to be installed on the front passenger seat only when it is unavoidable. Always move the seat as far back as possible, because the force of the deploying front passenger airbag could cause death or serious injury to the child.



• Make sure that you have complied with all installation instructions provided by the child restraint manufacturer and that the system is properly secured.

### —Child restraint system

A child restraint system for a small child or baby must itself be properly restrained on the seat with either the lap belt or the lap portion of the lap/shoulder belt. You must carefully consult the manufacturer's instructions which accompany the child restraint system.

To provide proper restraint, use a child restraint system following the manufacturer's instructions about the appropriate age and size of the child for the child restraint system.

Install the child restraint system correctly following the instructions provided by its manufacturer. General directions are also provided under the following illustrations.

The child restraint system should be installed on the rear seat if your vehicle is equipped with rear seats. According to accident statistics, the child is safer when properly restrained in the rear seat than in the front seat.



### CAUTION

Vehicles with passenger airbag manual on-off switch—

• Never put infant or child age 1 to 12 in a passenger risk group on the right front seat with the passenger airbag manual on-off switch in the "ON" position. In the event of an accident, the force of the rapid inflation of the passenger airbag can cause death or serious injury to the child.

If you must put infant or child age 1 to 12 in a passenger risk group on the right front seat, make sure the passenger airbag manual on-off switch is in the "OFF" position and that the indicator light is on. (For details, see "SRS driver airbag and front passenger airbag" in this section.)

• After installing the child restraint system, make sure it is secured in place according to the manufacturer's instructions. If it is not restrained securely, it may cause death or serious injury to the child in the event of a sudden stop or accident.

Vehicles without passenger airbag manual on-off switch—

- Never install a rear-facing child restraint system on the front seat. In the event of an accident, the force of the rapid inflation of the airbag can cause death or serious injury if a rear-facing child restraint system is installed on the front seat.
- Unless it is unavoidable, do not install a forward-facing child restraint system on the front seat.
- A forward-facing child restraint system should be allowed to be installed on the front passenger seat only when it is unavoidable. Always move the seat as far back as possible, because the force of the deploying front passenger airbag could cause death or serious injury to the child.
- After installing the child restraint system, make sure it is secured in place according to the manufacturer's instructions. If it is not restrained securely, it may cause death or serious injury to the child in the event of a sudden stop or accident.

### —Types of child restraint system

Child restraint systems are classified into the following 3 types depending on the child's age and size.

- (A) Infant seat
- (B) Convertible seat
- (C) Booster seat

Install the child restraint system following the instructions provided by its manufacturer.

For instructions on how to use the anchor bracket, see "Using a top strap" in this section.

The child restraint lower anchorages approved for your vehicle may also be used. See "Installation with child restraint lower anchorages" in this section.

When not using the child restraint system, keep it secured with the seat belt or place it somewhere other than the passenger compartment. This will prevent it from injuring passengers in the event of a sudden stop or accident.

Your vehicle has anchors for securing the top strap of a child restraint system.

**(g) "ABS" Warning Light**

The light comes on when the ignition key is turned to the "ON" position. If the anti-lock brake system works properly, the light turns off after a few seconds. Thereafter, if the system malfunctions, the light comes on again.

When the "ABS" warning light is on (and the brake system warning light is off), the anti-lock brake system does not operate, but the brake system still operates conventionally.

When the "ABS" warning light is on (and the brake system warning light is off), the anti-lock brake system does not operate so that the wheels could lock up during a sudden braking or braking on slippery road surfaces.

If either of the following conditions occurs, this indicates a malfunction somewhere in the parts monitored by the warning light system. Contact your Toyota dealer as soon as possible to service the vehicle.

- The light does not come on when the ignition key is turned to the "ON" position, or the light remains on.
- The light comes on while you are driving.

A warning light turning on briefly during operation does not indicate a problem.

With rear differential lock: However, it is a normal operation for the light to be on with rear differential locked. At this time, the anti-lock brake system does not operate.

**(h) SRS Warning Light**

This light will come on when the ignition key is turned to the "ON" position. After about 6 seconds, the light will go off. This means the system of the airbag and front seat belt pretensioners are operating properly.

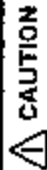
This warning light system monitors the airbag sensor assembly, front airbag sensors, front seat belt pretensioner assemblies, inflators, warning light, interconnecting wiring and power sources.

If either of the following conditions occurs, this indicates a malfunction somewhere in the parts monitored by the warning light system. Contact your Toyota dealer as soon as possible to service the vehicle.

- The light does not come on when the ignition key is turned to the "ON" position or remains on.
- The light comes on or flashes while driving.

**(i) Unengaged "Park" Warning Light (vehicles with automatic transmission)**

This light warns that the transmission "Park" mechanism is not engaged. If the front drive control lever is in the "N" position while the selector lever is in the "P" position, the transmission will disengage and the wheels will not lock.



**CAUTION**

To restore the park function, shift the front drive control lever out of "N", or the vehicle can move.

## Appendix D

### Miscellaneous Test Information

# Channel Report

04/30/2003 2:40:53 PM

Name of Test 030501

System K3600

Name of DAU DAU3

Chan.#	Sensor #	Mnemonic	Description	Dir.	Range	Pol. Cal.	Group	Mfg.	Model
3000	EVENT	EVENT	EVENT		10.24	+	OK	TRC	Event
3001	C15351	SLDXG	SLED G LONG.	Rear	199.88288	-	OK	Endevco	7231C
3002	C15519	SLDXGR	SLED G LONG	Rear	200.27772	-	OK	Endevco	7231C
3003	SLDXV	SLDXV	SLED VELOCITY		164.59317	-	OK	TRC	SLDXV
3004	SLDXGT	SLDXGT	SLED TRIGGER	Rear	195.51312	-	OK	Endevco	7231C
3005	APDJ3	HEDXG1	Head Accel X	Rwd	400.34717	-	OK	Endevco	7231C
3006	AGHP8	HEDYG1	Head Accel Y	Left	399.25763	-	OK	Endevco	7231C
3007	APD60	HEDZG1	Head Accel Z	Up	401.21461	-	OK	Endevco	7231C
3008	1716A-1221-FX	NEKXF1	Neck Force X	Hd	8895.0621	-	OK	Endevco	7231C
3009	1716A-1221-FY	NEKYF1	Neck Force Y	Hd	8889.3007	-	OK	Denton	1716A
3010	1716A-1221-FZ	NEKZF1	Neck Force Z	Hd	13350.072	-	OK	Denton	1716A
3011	1716A-1221-MX	NEKXM1	Neck Moment X	Rt Ear	282.42982	+	OK	Denton	1716A
3012	1716A-1221-MY	NEKYM1	Neck Moment Y	Chn	282.62541	+	OK	Denton	1716A
3013	1716A-1221-MZ	NEKZM1	Neck Moment Z	Chn	282.79480	+	OK	Denton	1716A
3014	C13010	CSTXG1	Chest Accel X	Fwd	398.44668	+	OK	Endevco	7231C
3015	C14563	CSTYG1	Chest Accel Y	Left	399.42894	+	OK	Endevco	7231C
3016	AD343	CSTZG1	Chest Accel Z	Down	398.84708	+	OK	Endevco	7231C
3017	14CB1-2847-041	CSTXD1	Chest Deflection X	Strum	100.51928	+	OK	Servo	14CB1-2847
3018	2430-962	LFMZFI	Left Femur Force Z 91	Knee	13347.405	+	OK	GSE	2430
3019	2430-982	RFMZFI	Right Femur Force Z 98	Knee	13345.590	+	OK	GSE	2430
3020	GB86	HEDXG2	Head Accel X	Rwd	400.04688	-	OK	Endevco	7231C
3021	GB77	HEDYG2	Head Accel Y	Lft	399.73327	-	OK	Endevco	7231C
3022	A54F	HEDZG2	Head Accel Z	Up	400.70593	-	OK	Endevco	7231C
3023	1716A-1222-FX	NEKXF2	Neck Force X	Hd	8903.7408	-	OK	Denton	1716A
3024	1716A-1222-FY	NEKYF2	Neck Force Y	Hd	8902.6722	-	OK	Denton	1716A
3025	1716A-1222-FZ	NEKZF2	Neck Force Z	Hd	13340.937	+	OK	Denton	1716A
3026	1716A-1222-MX	NEKXM2	Neck Moment X	Rt Ear	282.42795	-	OK	Denton	1716A
3027	1716A-1222-MY	NEKYM2	Neck Moment Y	Chn	282.64546	-	OK	Denton	1716A
3028	1716A-1222-MZ	NEKZM2	Neck Moment Z	Chn	282.52316	+	OK	Denton	1716A
3029	C14135	CSTXG2	Chest Accel X	Fwd	401.70567	+	OK	Endevco	7231C
3030	A35D	CSTYG2	Chest Accel Y	Lft	400.49436	-	OK	Endevco	7231C
3031	AH5G8	CSTZG2	Chest Accel Z	Down	401.06690	+	OK	Endevco	7231C

# Channel Report

04/30/2003 2:40:53 PM

3032	14CB1-2847-229	CSTXD2	Chest Deflection X	Strm	100.02442	mm	-	11/18/2002	OK	229n	Servo	14CB1-2847
3033	2430-901	LFMZP2	Left Femur Force Z, 603	Knee	13356.999	N	+	11/14/2002	OK	229n	GSE	2430
3034	2430-902	RFMZP2	Right Femur Force Z, 744	Knee	13360.965	N	+	11/14/2002	OK	229n	GSE	2430
3035	P25516	LBXG	Left Body @ Rear Seat ( front	Fwd	199.64516	g	-	03/04/2003	OK	-1	Endevco	7264C-2K-2-180
3036	P25323	RBXG	Right Body @ Rear Seat ( front	Fwd	200.07893	g	+	01/22/2003	OK	-1	Endevco	7264C-2K-2-180
3037	P26422	TEXG	Top of Engine Block	Fwd	199.69889	g	+	03/20/2003	OK	-1	Endevco	7264C-2K-2-180
3038	03D03C28-N27	RAXG	Rear Axle	Rr	200.12507	g	-	04/04/2003	OK	-1	Endevco	7264C-2K-2-180
3039	J33395	LFXG	Left Vehicle Frame	Fwd	199.92190	g	-	03/04/2003	OK	-1	Endevco	7264-2000TZ
3040	J12272	RFXG	Right Vehicle Frame	Fwd	199.81384	g	+	03/04/2003	OK	-1	Endevco	7264-2000TZ

# Digital and System Channel Report

2003-04-30 08:59:16

Name of Test 030501		System	K3600	Name of DAU	DAU3	descripio
enable Channel	Short Name	Type		Data File	Module Type	
d						
Yes 3500		dig0		DAT33500	KM3650 Sequencer	

bit position	bit	short	long	description
MSB = bit 15	1	Switch	Backup Switch	
bit 14	1	DABET1	Driv. Airbag Event (primary)	20 mS 1
bit 13	1	PABET1	Pass. Airbag Event (primary)	20 mS 2
bit 12	0			
bit 11	0			
bit 10	0			
bit 09	0			
bit 08	0			
bit 07	0			
bit 06	0			
bit 05	0			
bit 04	0			
bit 03	0			
bit 02	0			
bit 01	0			
LSB = bit 00	0			

Dummy 314n Type HYBRID III 50TH NHTSA - 314n HYBRID III 50TH CAL DUE 6-26-03(DKS 12-31-02)J211

Chsnam	Location	Model	Name	Manufacturer	Sens./mV/V/	Fullscal	Caldat	Pos Output	Flip
HEADXG	Head Accel X	7231C	APD13	Endevco	0.02014	750	12/26/2002	Rwd	1
HEADYG	Head Accel Y	7231C	AG11P8	Endevco	0.01914	750	12/26/2002	Left	1
HEADZG	Head Accel Z	7231C	APD60	Endevco	0.02073	750	12/26/2002	Up	1
NEKXF	Neck Force X	1716A	1716A-1221-PX	Denton	0.00019543	8896.4	12/26/2002	Hd Fd,Cst Rr	1
NEKYF	Neck Force Y	1716A	1716A-1221-PY	Denton	0.000186098	8896.4	12/26/2002	Hd Lt,Cst Rt	0
NEKZF	Neck Force Z	1716A	1716A-1221-PZ	Denton	0.000099486	1344.6	12/26/2002	Hd Up,Cst Dn	0
NEKXM	Neck Moment X	1716A	1716A-1221-MX	Denton	0.006063009	282.5	12/26/2002	Rt Ear to Rt Shld	1
NEKYM	Neck Moment Y	1716A	1716A-1221-MY	Denton	0.00588177	282.5	12/26/2002	Chst to Strum	0
NEKZM	Neck Moment Z	1716A	1716A-1221-MZ	Denton	0.00852	282.5	12/26/2002	Chst to Lt Shld	0
CSTXG	Chest Accel X	7231C	C13010	Endevco	0.02954	750	12/26/2002	Fwd	0
CSTYG	Chest Accel Y	7231C	C14563	Endevco	0.02981	750	12/26/2002	Left	1
CSTZG	Chest Accel Z	7231C	AD343	Endevco	0.01945	750	12/26/2002	Down	0
CSTXD	Chest Deflection X	14CB1-2847	14CB1-2847-041	Servo	1.1319	100	1/6/2003	Strum Away From Spn	0
LFMZF	Left Femur Force Z 91	2430	2430-962	GSE	0.000069241	13344.7	12/26/2002	Knee Fd,Pel Rr	0
RFMZF	Right Femur Force Z 98	2430	2430-982	GSE	0.000068754	13344.7	12/26/2002	Knee Fd,Pel Rr	0

D-5

S030501

Wednesday, April 30, 2003 314n



Dummy 229n Type HYBRID III 50TH Description NHTSA - 229n HYBRID III 50TH CAL DUE 5-14-03 (DKS 11-18-02)211

Chsnam	Location	Model	Name	Manufacturer	Sens./m/V/V	Fullscal	Calcat	Pos Output	Fltp
HEDXG	Head Accel X	7231C	GB86	Endevco	0.01969	750	11/14/2002	Rwd	1
HEDYG	Head Accel Y	7231C	GB77	Endevco	0.01926	750	11/14/2002	Lr	1
HEDZO	Head Accel Z	7231C	A54F	Endevco	0.01981	750	11/14/2002	Up	1
NEKXF	Neck Force X	1716A	1716A-1222-FX	Denton	0.00019427	8896.4	11/14/2002	Hd Fd,Cst Rt	1
NEKYF	Neck Force Y	1716A	1716A-1222-FY	Denton	0.000189492	8896.4	11/14/2002	Hd Lr,Cst Rt	0
NEKZF	Neck Force Z	1716A	1716A-1222-FZ	Denton	0.000999943	13344.6	11/14/2002	Hd Up,Cst Dn	0
NEKXM	Neck Moment X	1716A	1716A-1222-MX	Denton	0.005983009	282.5	11/14/2002	Rt Ear to Rt Shld	1
NEKYM	Neck Moment Y	1716A	1716A-1222-MY	Denton	0.006140331	282.5	11/14/2002	Chn to Strnm	0
NEKZM	Neck Moment Z	1716A	1716A-1222-MZ	Denton	0.008429027	282.5	11/14/2002	Chn to Lt Shld	0
CSIXG	Chest Accel X	7231C	C14135	Endevco	0.02741	750	11/14/2002	Fwd	0
CSIYG	Chest Accel Y	7231C	A35D	Endevco	0.01937	750	1/24/2003	Lr	1
CSIZG	Chest Accel Z	7231C	AH5G8	Endevco	0.01949	750	1/24/2003	Down	0
CSIXD	Chest Deflection X	14CB1-2847	14CB1-2847-229	Servo	1.1375	100	11/18/2002	Strnm Away Frm Spu	0
IFMZF	Left Femur Force Z 603	2430	2430-901	GSE	0.000071249	13344.7	11/14/2002	Knee Fd,Pel Rt	0
RFMZF	Right Femur Force Z 744	2430	2430-902	GSE	0.000070313	13344.7	11/14/2002	Knee Fd,Pel Rt	0

# C35106 / TEMPERATURE AND HUMIDITY CHART

